CMU algorithm detects online fraudsters • A6

SCITech

First Folio on display at the Posner Center

SARAH GUTEKUNST
Publisher

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The Tartan

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Carnegie Mellon students gather on the CFA Lawn for Fall Activities Fair

It was recently announced that Carnegie Mellon University removed its dual-degree program in computer science and Tsinghua University, China’s top-ranked computer science program.

“The world is becoming a smaller place,” said John Zhu, associate professor of computer science at Tsinghua University. “This is an opportunity for students to receive a dual degree from two of the best universities in China and the United States.

The program was designed to be flexible and allow students to choose courses from both universities.

The Center for Iranian Music at Carnegie Mellon University will host a concert to promote Persian music.

On September 14, the Center for Iranian Music at Carnegie Mellon University will host a concert to promote Persian music. The concert will feature performances by Iranian musicians who will play traditional Persian instruments and contemporary Iranian music.

The concert is free and open to the public. It will be held in the College of Fine Arts building.
LumiShield selected to present at University Startups Demo Day

LumiShield’s CEO and co-founder David Luksic says USDD will be “a great opportunity to meet people and get exposure.” The Startup Office from Carnegie Mellon, Reed McIlvain, oversees the competition and growth of student startups at the University. The College is responsible for facilitating and accelerating the movement of research and technology out of the university and into the marketplace.

According to the company’s website, NECTET’s Selection Committee, comprised of corporations, angels, and VCs, evaluates the startups by looking at corporate interest and venture metrics. NECTET also solicits growth and innovation expertise by bringing together Fortune/Global 100 companies, venture capitalists, economic development organizations, mass and federal agencies, universities, and corporations.

The aim of the project is to help founders understand how to bring to market a technology to solve a problem that is important to society. “While there are many innovative concepts out there, for some reason, they don’t really see them interact in any way,” David Luksic, a senior founder at LumiShield, said. “LumiShield, a business founded to create and deliver the LumiShield solution, will be the challenging universities in Carnegie Mellon. The College hopes to see students with different cultural backgrounds and interests feel comfortable not only to connect with each other, but also to connect with the organizations to not only get involved, but to really make them see the potential for reigniting the bright-eyed freshmen desire of making a change.”

Not only was LumiShield selected from a competitive pool of groundbreaking ideas, it has also been named as one of the best university startups of 2016.

Color’s @ CMU Challenge seeks to promote interactions between student organizations

VAHEE NEWMAN

For one week during the month of October, Color’s @ CMU Challenge seeks to spark conversations among student organizations on the Carnegie Mellon campus in an effort to gain a better understanding of people of differing backgrounds, before being hosted in front of 2,000+ Grand Challenge attendees.

The first five 4-1 Grand Challenges will take place throughout the fall semester, consisting of two recognized student organizations, one of which must be a multi-cultural organization and the other to be client of collaborating a project that will make a positive impact on the Carnegie Mellon community. Teams are free to create any project they desire to ultimately utilize two grants. The project must be community based, directly involve and increase interaction between Carnegie Mellon and LumiShield. To show tangible results by the end of the year.

The 4-1 Grand Challenge will begin on Sept. 20, 10:00 a.m. The first phase of the 4-1 Grand Challenge will be open from Sept. 20 to Sept. 28. We hope to announce it on Oct. 14. The 4-1 Grand Challenge will have a total budget of $2,000, which will be divided between various student organizations that compete for funding. It will also be announced on Oct. 14. As of now, there are no restrictions on what each team can use it for. As long as it can be decided to use it for a positive purpose. The first challenge is called, “What are the questions about the challenges, such as a new idea, or: “We’re really looking to find out about great projects in October!” Thomas said.

“We would love to see students involved in OM feeling comfortable and interested enough to collaborate with SPIRIT and vice versa, or to see SALSA collaborate with ASA.” —Chris Thomas, Colors @ CMU Challenge

Student Body President and Vice President host conference

CONFERENCES, from A1

Office of the Dean of Student Affairs, financial aid, and government, shared that he has plans to interact with students face to face at the event, and is continuously working to improve the potential for annual student organizations, despite the competition. “The students are achieving not just a great amount of success, but also a great amount of development,” he said. “It is a more elevated campus. The students are looking for ways to integrate with the community.”

The event, which ended Tuesday, Oct. 11, featured leaders and starters of change, including individuals to step outside their comfort zones to not only become leaders after the conference to help them clarify and execute their potential, Unnava and her cabinet “will be regularly following up to ensure that the challenge will embolden what it truly means to be a student, that diversity should not be something that exists on paper, but stickier, but paper. But that students look forward to, so they will be able to learn new perspectives and, in the future, change their actions.”

Carnegie Mellon’s annual conference, Colors @ CMU, has been selected as one of the top university startups to be presented at the University Startups Demo Day. The National Council of Entrepreneurial Tech Transf (NCTET) will host its first University Startups Demo Day (USDH) this year in Washington, D.C. on Sept. 20. USDD offers an extraordinary opportunity for corporate innovation and venture capital groups to display their competencies with breakthrough startups. Not only will 200 startups be eligible for final submission, but all entrepreneurs have to be affiliated with a university. Some additional companies have sponsored from University of Pittsburgh, Berkeley, and Case Western. This year, USDD will be showcasing 35 of the most prestigious university startups in technology, and LumiShield is among those select few.

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GET TREATED LIKE THE MILLION BUCKS YOU MIGHT NOT HAVE.

Because our focus is on you, not shareholders, you can get personal support whether you have $500 or $5 million. Start now at TIAA.org/advice
New CMU algorithm detects online fraud

**STEPHANIE YOU**

Senior Writer

Have you ever tried to quiz up on Snapchat results with the face-changing filters? Have you ever wondered how these filters, called “lenses,” even work?

Some four years after its first launch in July 2011 under the name Snapchat, the image messaging app, has grown to become one of the most popular social media apps among millennials, with 10 billion daily video views as of April 2016. Snapchat is working to update its app with new filters. See **SAMPARK**, A7

**GEOBITE**

Researchers have recently discovered that there are four previously unrecognized species of giraffe in the African savannas. The findings, which were published in Current Biology, were unexpected, as some researchers had previously considered the giraffes to be part of a single species.

Andrzej Jablonski, a geneticist at the Stockholm University and the Umeå University in Sweden, along with a team of researchers, sequenced DNA from 137 giraffe samples from across the continent. The study was from a variety of regions in Africa — from the Aldabra and included samples from all nine previously recognized giraffe species.

The samples (tissues that include blood, hair, or bone) were collected from hunters, zoos, and sanctuaries, as well as from fences and natural areas. The team analyzed DNA from different parts of the genome to determine the species of the giraffe.

The results show that there are four species of giraffe, rather than one. The researchers believe that this discovery will help conservation efforts.

**Device visualizes bacterial resistance to antibiotics**

Researchers in a research fellow in systems biology at Stanford University have developed a method to visualize how microbes become antibiotic-resistant. This method allows researchers to visualize how bacteria become antibiotic-resistant.

"Inside the cell, in a process called drug resistance, bacteria are programmed to create resistance when they are exposed to antibiotics," says Baym.

The research team used a dish over a meter long that was coated with different concentrations of antibiotics, such as ampicillin — high and low concentrations. The team added E. coli bacteria to the plate and let it multiply for a week or more. With the setup, the bacteria mutated over time in order to handle higher levels of antibiotics, and were able to move into new portions of the plate.

The team also used reseachers to see differences in bacterial behavior — high-copies versus low-copies. The researchers believe that this new setup could also help researchers study how microbial colonies evolve under different conditions such as nutrient availability or spatial containment.

**Improving PTSD brain function with near-infrared light**

Researchers at the University of Texas (UT) at Austin have discovered that a novel form of light therapy could potentially be used to improve the cognitive function of patients with PTSD.

The research team studied near-infrared light (NIR) on a human forearm and discovered that this treatment promoted the production of cytochrome-c-oxidase, a protein that stimulates blood flow in neurons. Hau Lee, a bioengineer at UT Austin, was the principal investigator of the research, and his team found that approximately 1.5 million square kilometers had been lost since the original map was drawn.

The research team created a map of areas where living humans surround the world and compiled their findings to a single map that was used in the early 1990s. The researchers discovered that approximately 1.5 million square kilometers had been lost since the initial map was made.

The researchers argue that these demonstrations for the first time that light therapy could potentially treat a larger fraction of the population. They also noted that the next step is to "apply what we learned in a similar system to the brain," where the light must pass through the skin and the skull, as well as the brain.

The research team has previously found that patients with PTSD had decreased blood flow in the left side of the dorsal lateral prosen- tencephalon, a brain region involved in the control of emotional responses.

The research team is now moving towards preclinical trials involving rats in the hope of confirming their initial findings.

**Wilderness reduced by 10 percent since 1990s**

World Conservation Society researchers have recently discovered that a third of the wilderness areas in the world have been reduced by nearly 10 percent since the 1990s.

The findings, which were published in Current Biology, show that the most alarming losses are occurring in South America and Africa.

The research team created a map of areas where living wildlife are surrounded by people around the world and compiled their findings to a single map that was used in the early 1990s. The researchers discovered that approximately 1.5 million square kilometers had been lost since the initial map was made.

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**NASA launches probe to retrieve asteroid sample**

On Sept. 14, NASA launched Osiris-Rex, a probe that is be- ing sent to collect a rock sam- ple from an asteroid called Bennu. The probe will spend approximately 2.5 years on Bennu, and will take seven years total to complete its journey and return the rock sample.

If all goes as planned, the sample will be delivered to Earth in a capsule on Sept. 24, 2023 somewhere in the Arizona desert.

The probe was launched to help researchers learn more about the Earth’s neighboring planet.

**Scientists in Japan have discovered that the ancient marine inverte- rate animal, could be one of the earliest forms of animal migration.**

Researchers have investigated the use of MRI to study the brain activity of rats with PTSD.

The researchers believe that this new setup could also help researchers study how microbial colonies evolve under different conditions such as nutrient availability or spatial containment.

**Tributes show early example of mass migration**

Blaise Banioule, a pa- thologist from the Polish Academy of Science, along with a team of researchers, has discovered that trilobites, a type of extinct marine inverte- rate animal, could be one of the earliest forms of animal migration.

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Researchers have investigated the use of MRI to study the brain activity of rats with PTSD.
Researchers make key discovery toward engineering breast tissue

FRAUDAR algorithm detects social media fraudulent accounts

Snapchat filters analyze pixel data to detect objects, add laughter

SnapChat from All

technologies, such as the 24-hour story (which was recently copied by Instagram), temporary text messages, and instant video chatting. In September 2015, for about $150 million, Snapchat purchased the Ukrainian company Looker, which specializes in real-time video moderation on mobile devices, in order to create Lens. Even people who have not downloaded the app have most likely been exposed to the famous Snapchat filters — during the 2016 New York Fashion Week, a Spanish clothing brand used makeup to recreate the most popular lenses on their mod els. Lens have been made their way into Facebook profile pictures, Instagram posts, and Twitter bio, even though Snapchat’s uniqueness comes from its ephemeral nature.

For almost a year, Snapchat users saw filters of pictures and videos al lowed by Lens, cryptocurrency of the techn ology behind it. In June 2016, Vox, the self-described “general inter est news site for the 21st century,” posted a YouTube video sharing i n sight into the mechanics of Lens, and although they were not allowed to talk to the engineers behind it, the video led Vox to examine the patented available.

The filters tap into a field of tech known as computer vision, which explores how a computer sees a camera’ s pixel data to detect objects. The pixel data that the computer sees are m any numbers corresponding to each pixel that represent a color, and the algorithm to detect faces involves locating common areas of contrast and searching the patches to typical pattern of a face. For example, the bridge of a nose is often lighter in contrast to the n ar rowing areas, and the center of a forehead is lighter than the sides. This algorithm, known as the Viola-Jones algorithm, only works with two- or three- diagonal angles. If someone was looking to clip their head to the side, the computer would not be able to detect faces.

The advantages to the system in clude its fast computational abilities and its approach to scaling features. However, the algorithm is sensitive to lighting and, as we mentioned before, angles of the face in addition to recognizing common areas of contrast and simply recomposing faces. Snapchat must somehow exactly where such features of the face is in order to accurately place features. According to Vox, people behind the screen manually marked facial features of thousands of different people in or der to develop a general tem plate that can be applied to every face. But before further adjustments, namely rotating and scaling the template, can occur. After this, Snapchat must yet again analyze pixel data surrounding each facial feature to make minor r evisions in the mesh (or the digital mesh).

FRAUDAR algorithm detects social media fraudulent accounts

Researchers make key discovery toward engineering breast tissue

"The algorithm is very fast and doesn’t require us to target any body," Fialkow said in the univers ity press release. FRAUDAR has been made available as an open-source code. “We hope that by making this code available as open source, social media platforms can put it to good use,” Fialkow said.
CRAIG LEITCH

Editor’s note: this is the first of a six-part series on Pennsylvania’s Fracturing Process. This week, I’m happy to share with you what I have learned about politics in the Keystone State. The rest of this series will follow in the coming weeks.

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For the past two years, the Pennsylvania Department of Environmental Protection has been investigating reports of chemical contamination in water wells that could be attributed to fracking. The process involves injecting chemicals and water into a bedrock formation deep in the earth. Millions of gallons of water, sand and chemicals are pumped underground to break open and fracture the shale formation, releasing gas and fluid to be transported and used as energy.

Chemicals used in fracking have been linked to a variety of health problems, including cancer, birth defects and neurological disorders. Despite this, the Pennsylvania Department of Environmental Protection continues to allow fracking to proceed with little oversight.

The international community has been urging the United States to address the issue of chemical contamination in water wells. However, the Pennsylvania Department of Environmental Protection has been slow to act, and the state continues to allow fracking to proceed unchecked.

The Pennsylvania Department of Environmental Protection has been criticized for its handling of the fracking controversy. The department has been accused of inadequately regulating the process, and of allowing fracking to proceed without adequate oversight.

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The Pennsylvania Department of Environmental Protection has been criticized for its handling of the fracking controversy. The department has been accused of inadequate...
Hidden Figures reveals role of women in STEM

SYDNEY REYER

Editor’s note: This week’s highly-anticipated release of the book Hidden Figures focuses on the contributions that Johnson, along with her colleagues Dorothy Vaughan and Mary Jackson, made to America’s technological achievements during the space race. These women were members of a select group of numerical analysts known as the West Area Computing group, a group of black, female mathematicians that were segregated from the rest of the women. As the book was known as “computers” in the age before electronic computers were used, and since they specifically trained to fill in the gaps left by the men computer operators, many of these women’s stories have been lost to the public.

On February 21, 1960, John Glenn made history when he became the first American to orbit Earth. His journey into space was a triumph for science, but women, and especially black women, were largely left out of the narrative.

In Defense of U.S.-two-party system

TOMMY HARROW

The perfect union that we strive for is definitely a long ways off. Still, the two parties system is not a bad thing. Understandably, a multi-party system is the norm in various foreign countries. Frankly, I wish we had a hundred parties in America. If the burkini truly represents male supremacy and colonization, then it should be banned without compromising their religious freedoms. The perfect union that we strive for is definitely a long ways off. Still, the two parties system is not a bad thing. Understandably, a multi-party system is the norm in various foreign countries. Frankly, I wish we had a hundred parties in America.

French burkini ban hinges, not liberates, Muslim women

Paris-based France-Code.org, which lobbies for religious liberalism, says the law is a “majoritarian project that continues to stigmatize the Muslim woman.” France-Code.org also said it would appeal the law to the European Court of Human Rights, which will determine whether the ban is discriminatory. A multi-party system cannot be sustained due to the question over its political power. The perfect union that we strive for is definitely a long ways off. Still, the two parties system is not a bad thing. Understandably, a multi-party system is the norm in various foreign countries. Frankly, I wish we had a hundred parties in America.
The Oakland Raiders line up to in a play. The Raiders are expected to improve greatly on last season’s results.

**NFL teams begin the 2016 season ready to fight or falter**

**ZEKE ROSEMORE**

While the NFL no longer fans the periphery it once espoused, a year ago the schedule was still producing some who wept more than they cheered on the standings based on luck and rapid changes that were inevitable for the roster. This exercise tends to go nowhere with ‘Pike- skers who will improve, who will stumble down the standings and who will make the Lombardi Trophy in February when it’s all said and done.

Team to improve: Oakland Raiders (7-9)

The Raiders 7-9 record last season meant their only way to improve was to stumble down the standings, but a good run stepper when the comebacks. The rest of the defense was only shot and the secondary even more looked plain bad. The offensive line was solid and kept a clean pocket, but quarterback Derek Carr lost 375 yards to dropped passes and did not have a good check down option, limiting his efficiency.

Last year, back Lataurus Murray also struggled to do a lot on a pressure him managing only an even for rare pass-off. He can create holes in the middle and the team split their one-t lawyers, going 5-5 and the turn the ball over about a third of the time in many of his comeback turnovers, both very variabil-

However, the Raiders off- season are improving. Reggie Nelson, the exact list of fullbacked safety that makes life easy on a running back. The pass and the close gap down the middle gives the Raiders a safety in the box when nurturing and get deep, finishing up cir-

The secondary also im- proves with the arrival of free- safety Charles couture Sean Smith. Smith’s ability to knock down great receivers was con- tinued with another strong Kansas City last season, and quarter- backing pressure in the middle of the secondary. Smith can keep a firm hand on lead to Mack who can also cover tight ends, to the secondary occasion.

Defensive end Khalil Mack who can also cover tight ends, to the secondary occasion.

The Raiders were able to form one of the best wide re- ceiver duos in the league for last year accurately represent the top fantasy quarterback. Zeke also snagged Caro-

Some of last season’s top fantasy quarterbacks are Jordy Nelson of the Green Bay Packers, Mike Evans of the Tampa Bay Buc-

The Tartan annual Fantasy Football league gets underway

The Tartan annual Fantasy Football league gets underway

Sarah also decided to take a look at the top tight end, but the other picks tight end Rob Gronkowski.

The Tartan.

League. Whether or not that translates to success will de-

Evolving given how active Lula Rice's experience.

The second round is planned on her choice of defense.

Last year's team have returned-

Evans of the Tampa Bay Buc-

The Tartan.

The Tartan.

Tom Brady at the top of the list.

Taras, I can see why she would be
to the top fantasy quarterback.

Alex's starting team is
to the top fantasy quarterback.

Team 2: Extremely Dark Team

Sports editor Alex Wood

some of the best fantasy football players.

Alex's starting team is
to the top fantasy quarterback).

Team 3: Lieutenant Doodie

Sarah makes her trium-

She was tempted to grab Peterson

I can see why she would be
to the top fantasy quarterback.

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Taras, I can see why she would be
to the top fantasy quarterback.

Alex's starting team is
SPORTS BRIEFS

Last year, the Broncos became the first team to ever win the Super Bowl, Football. Defensive. However, this year’s Defense
was much more than just a shiny logo.

The team’s success can be attributed to their<br>penchant for putting points on the board. The<br>offense is led by quarterback Trevor<br>Siemian, who is expected to have a<br>breakout season this year.

The Broncos’ defense is led by<br>middle linebacker Von Miller, who<br>led the league in sacks last season with 15.5. Miller was<br>named to the All-Pro team for the second<br>straight year. He’s joined by edge<br>defenders Bradley Chubb and<br>Shaq Lawson, who combined for 13.5<br>sacks last season.

The secondary is led by strong safety<br>Malik Jackson, who was named to the<br>Pro Bowl last season. He<br>is joined by strong safety<br>Ulysees Gilbert III, who<br>had a career-high 77 tackles last season.

The team’s depth is evident across the<br>board, with players like<br>Denver Broncos<br>cornerback Aqib<br>Talib, who<br>is expected to<br>prove his worth as<br>the team’s<br>second<br>cornerback.<br>The<br>offense<br>has<br>added<br>some<br>new<br>pieces<br>to<br>its<br>roster<br>in<br>free<br>agency,<br>including<br>wide<br>receiver<br>Julio<br>Jones,<br>who<br>was<br>acquired<br>from<br>the<br>Atlanta<br>Falcons.<br>The<br>team<br>also<br>added<br>defensive<br>tackle<br>Buck<br>Davis,<br>who<br>was<br>signed<br>as<br>a<br>free<br>agent.<br>The<br>Broncos<br>will<br>start<br>their<br>season<br>against<br>the<br>San<br>Diego<br>Chargers<br>in<br>Week<br>1.<br>Team<br>to<br>Watch:<br>Denver<br>Broncos<br>Team<br>to<br>Watch:<br>Denver<br>Broncos
Sophomore midfielder Zack Masciopinto focuses on landing a high kick. He has been a key player this year.

With only ten men. Despite vantage only lasted fourteen minutes played with a man advantage. This man advantage lasted an exciting 1–0 overtime victory.

Frostburg State University in overtime, falling to 0–1 overall. tie to the Bears 41–34 in a hard-fought matchup, the Tartan offense took the field first. After going three and out, the Tartan offense once again the Tartan lead to 21–3. On the next drive, the Tartan defense once again shut down Washington University. The Tartan defense once again shut down Washington University.

With this victory, the Tartan offense with great field position. After two plays of nullifying the offense, junior wide receiver John Prather had a pass for the Tartans first down of the day, and junior running back Isai Benger took advantage of the momentum, running all the way to the end zone and putting the Tartans up 7–0.

On the next drive, the Tartan offense once again shut down Washington University. Benger made a few first down and, as the Tartan offense controlled the line of scrimmage. On third down, senior wide receiver Matti Prather made a diving catch for a critical first down conversion, allowing Prather to hurdle in the next pass for a touchdown, going 46–4. The drive concluded once again the Tartan offense with great field position. After two plays of nullifying the offense, junior wide receiver John Prather had a pass for the Tartans first down of the day, and junior running back Isai Benger took advantage of the momentum, running all the way to the end zone and putting the Tartans up 7–0.

In the second quarter, Washington got the ball back quickly and went to work trying to cut the Tartan lead down. The Bears made a deep pass, getting into Tartan territory, and another pass quickly brought them to the goal line. Offering penalties removed a touchdown pass for Washington, forcing them to settle for a field goal attempt, making the score 21–3.

The Tartans went back to work, going with the Bears a bit of breathing room after a poor kickoff return. A pass from Cooper Tubiana got the Tartans to the other side of the field, but a tripping penalty on the next pass punt gave the drive. Kolin hartman punted the Bears within 10-yard line, and the Tartan defense was able to keep them from gaining much traction. Jangro made a 48-yard field goal on his next pass. Washington Marched down the field toward the goal line, but the Tartan offense once again shut down Washington University.

With this victory, the Tartan offense took the field first. After going three and out, the Tartan offense once again shut down Washington University. The Tartan defense once again shut down Washington University.

The Bears scored another touchdown late in the game. Still, the mistakes made throughout the game added up.

The Tartans improved to 2–2 on the season, they overcome a 1–3 start to win their last seven games. They have the capability of scoring enough points, especially with Benger continuing to perform well.

The Tartans will next play against Washington on September 27.
Career Fairs: EncompassCMU and Technical Opportunities Conference

**Wiegand Gymnasium**

Tuesday, September 13
10 a.m.–5 p.m.
Tuesday, September 19
10 a.m.–5 p.m.
Tuesday, September 20
10 a.m.–5 p.m.
Tuesday, September 21
10 a.m.–5 p.m.

EOC and BOC return as EncompassCMU; TOC eliminates nametags

**Career Fairs:**

**EncompassCMU**

EncompassCMU, which will be held in the Cohon Center on Sept. 13 from 10 a.m. to 4:45 p.m., is new this year. Hosted by the CPDC, the fair will combine two career fairs that were held in previous years — the Employment Opportunities Conference (EOC) and the Business Opportunities Conference (BOC). By combining these two fairs, the CPDC has created a career fair that will offer jobs and internships to students of all majors and class years.

In an email to the student body, the CPDC highlighted the diversity of the career fair, noting that the fair will "bring together arts, business, computer science, engineering, humanities, and science students in one location," and that "employers from all industries looking to fill numerous and rated roles are encouraged to attend." Specifically, the CPDC noted that "more employers have registereed who represent ‘a multitude of industries from finance to nonprofit to technology and everything in between.’"

EncompassCMU will be split into two sections. The first, from 10 a.m. to 12:45 p.m., will be reserved for students who are looking for internship opportunities. The second, from 1:45 p.m. to 4:45 p.m., will be reserved for students seeking full-time employment. Although these times are split between internship and full-time opportunities, students are welcome to attend either session if their schedules conflict with their designated section.

Students must have their Carnegie Mellon student ID to enter the fair and are not allowed to bring coats or backpacks into the gymnasium. A coat and backpack check will be provided in Poinciana, Wright and McKeown.

**Technical Opportunities Conference (TOC)**

The TOC will be held in the Cohon University Center on Sept. 13-21 from 10 a.m. to 5 p.m. each day. The event, which is sponsored by the College of Engineering and organized by the Carnegie Mellon Society of Women Engineers (CMU-SWE), offers internship and full-time job opportunities for technical majors as well as traditional engineering and basic science majors.

There are several changes to the TOC this year, most notably the lack of name tags. In previous years, name tags were provided printed name tags at the TOC. Students who pre-registered for the event online were provided printed name tags on the day of the event, whereas students who did not pre-register were required to purchase a name tag at the booth.

"We are constantly trying to improve the entry process to the TOC, allowing students to have more time with recruiters."

— Anna Bandecca, senior chemical and biomedical engineering major, TOC director

Organizers believe that this change will help the TOC run more smoothly and be more environmentally friendly. "Many [name tags] were put to waste due to students' failure to pick up their name tag," said Anna Bandecca, a senior chemical and biomedical engineering major and one of the two TOC directors along with Alex Cemzy. "We are constantly trying to improve the entry process to the TOC, allowing students to have more time with recruiters, as we think that change will help.

Like EncompassCMU, the TOC will be split into two sections each day. The first, from 3 p.m. to 5 p.m., will be reserved for internship opportunities, whereas the second, from 4:45 p.m. to 5 p.m., will be reserved for full-time opportunities. The TOC will begin for lunch from 1 p.m. to 2 p.m. There will be no admittance into the TOC after 4:45 p.m. for the lunch break and after 4:45 p.m. for the end of the day.

While the TOC will only be open the same times each day, the majors being recruited will vary. Sept. 19 will host companies in computer science, electrical and computer engineering, and other computer/IT majors. The third day, Sept. 21, will be open to non-computer/IT majors including, but not limited to, biology, biomedical engineering, chemical engineering, and mechanical engineering.

As with EncompassCMU, students must have their student IDs to enter the fair and be required to check any coats/backpacks in baggage check, which will be located in the Activators Room on the second floor of the Cohon Center.

**CLARE DIAMOND**

Editor-in-Chief

Career fairs are an important step in the job search process, providing students with the chance to interact with companies and employers in the hopes of attaining an internship or full-time employment. In the next two weeks, Carnegie Mellon students will have the opportunity to attend two major career fairs on campus — EncompassCMU and the Technical Opportunities Conference (TOC). Both of these career fairs will give students the opportunity to network with employers and explore their career options.

As always, the Career and Professional Development Center (CPDC) has a variety of resources to help students prepare for EncompassCMU and the TOC. CPDC Drop-In hours are Monday through Friday from 11:30 a.m. to 1:30 p.m. Drop-in hours allow students to meet for 15 minutes with a career counselor to prepare for EncompassCMU or to practice their elevator pitch. No appointment is necessary for either event.

EncompassCMU

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TUESDAY, SEPTEMBER 13
EncompassCMU
10:00 a.m. – 5:00 p.m. in Wiegand Gymnasium
MONDAY, SEPTEMBER 19
Technical Opportunities Conference
10:00 a.m.–5:00 p.m. in Wiegand Gymnasium and Rangos

WIEGAND GYM

B3
MONDAY, SEPTEMBER 19
Technical Opportunities Conference
10:00 a.m.–5:00 p.m. in Wiegand Gymnasium and Rangos

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September 12, 2016 • The Tartan
### TUESDAY, SEPTEMBER 20
#### Technical Opportunities Conference
10:00 a.m.–5:00 p.m. in Wiegand Gymnasium

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<td>Decisive Analytics Corporation</td>
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#### Company Name
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- Aurora Flight Sciences
- AVENCore
- Clark Construction Group
- Eastern Research Group, Inc.
- ExxonMobil Corporation
- General Motors
- Grant Street Group
- Intrasol, LLC
- Intralox, LLC
- Knewton
- Lockheed Martin
- LORD Corporation
- Maseco & Co., Inc.
- Michael Baker International
- Moog, Inc.
- NASA Glenn Research Center
- Nike
- Northrop Grumman
- Nucor
- Parker Hannifin Corporation

**Editor's Note:** Attending companies subject to change.

### WEDNESDAY, SEPTEMBER 21
#### Technical Opportunities Conference
10:00 a.m.–5:00 p.m. in Wiegand Gymnasium

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**Company Name**
- Johns Hopkins University Applied Physics
- Johnson & Johnson
- JPMorgan Chase & Co.
- Key Tech
- Leidos, Inc.
- Livexp
- Lutron Electronics Company
- MAGIC LEAP
- Medidata Solutions
- Melanox Technologies
- MemSQL
- Merck & Co., Inc.
- Microsoft
- MIT Lincoln Laboratory
- National Security Agency (NSA)
- Naval Nuclear Laboratory (Bechtel Marine)
- NVIDIA Corporation
- Oracle
- Olympus Health Insurance
- PayPal
- Phillips North America
- Progression Innsurance
- Pure Storage
- Quantum Financial Systems
- Rakuten, Inc.
- Ruthen Robotics
- Robert Bosch, LLC
- Salesforce
- Samsung Research America
- Schumigner
- Softimage
- Software Engineering Institute (CMU)
- Space and Naval Warfare (SPAWAR)
- Systems Center Pacific (SSCPAC)
- Spotify
- Symantec, LLC
- Tapad, Inc.
- Tata Consultancy Services
- Tinkr, Inc.
- Turnitin
- Twilio
- Union Pacific Railroad
- United States Postal Service
- Uptake Technologies, Inc.
- VMware, Inc.
- Wayfair
- WorldQuant, LLC
- Wrisco
- Zazzle

**Company Name**
- Thales
- Union Pacific Railroad
- US Air Force
- Washington Penn Plastic
- Wiss, Janney, Eltinh Associates, Inc.
4 CMOA NIGHTIME: music, lights, history

6 Dorm Storm: an evening serenade tour

8 Archer: offbeat, capricious Bond

3 Advice for Awkward People: bare feet and adaptability

3 Don’t Breathe: Movie Review

10 Tokyo Fiancée: an undiscovered Netflix gem

11 Comics: savagery, equations, and Filbert

13 Puzzles: your weekly mental warmup

14 Horoscopes: what the stars are telling you to watch
**Don’t Breathe: Movie Review**

Don’t Breathe delivers on conventional horror movie tropes while offering some surprises.

I’ve only recently come to tolerate horror as a genre. For 90 percent of my life, I found scary movies physically repellent. For example, as a peer-pressured pre-teen forced to watch slasher classic I Know What You Did Last Summer, I tried to throw my hands to my face to cover my eyes, except that I was eating a muffin on my mom’s nice Pfalzgraff plate. I chipped my tooth. A few years later, trying to be brave, I joined my uncle to watch Stephen King’s The Mist. I slept with my sister for a week.

But at Carnegie Mellon, having both a best friend and a boyfriend who inexplicably love horror movies, I bit the bullet. As I sit through more scary movies with them, I gradually numb to their effects, and occasionally, I even enjoy them. So as a back to school treat, said best friend and I indulged in dinner and a movie: Burgatory and Don’t Breathe.

When I saw the trailer for it, innocently enough trying to enjoy Sausage Party, I nearly released fluids. So going into Don’t Breathe, I viewed it as a real challenge to my horror tolerance. But just in case, I appealed to another of my low tolerances and went in two margaritas deep, stuffed to the gills with the burger of the day. We picked out seats, I put up my feet, and I unbuttoned my pants. I was ready to roll.

The opening scene of the movie feels like Bling Ring — three smug, reckless teens (Alex, Rocky, and Money) rummaging through a stranger’s home with an air of dangerous excitement. Then we get some vague characterization. Alex loves Rocky, but is meek and probably thinks she “friend-zoned” him. Conveniently, his father owns a home security company and keeps all the keys and alarm codes in their home. Alex helps Rocky and Money break into houses so that Rocky will like him? Rocky is tough because she had to be. Money is just a thug. We know he’s going to die first. They find out about a blind old Gulf War veteran sitting on a large cash settlement from the rich parents of a drunk driver who killed his daughter. Naturally they decide to go for it.

The build is slow and uncomfortable from the moment they walk in his door. As the band of idiots tiptoes around searching for the buried treasure, the camera pans across parts of the house that will eventually contribute to their downfall. The tension builds.

Naively I assumed the whole film is going to be this silent, adrenaline-filled hide and seek game gradually building to a big confrontation. But no.

The confrontation comes much earlier than expected, and the rest of the movie is hard to describe. Not scary, but certainly disturbing. I didn’t throw my hands into my face, but I did gag several times. The real horror unfolds as we discover what’s hiding in his basement.

**Spoiler:** it’s the girl who killed his daughter. But because he was down there chasing Alex and Rocky (Money is already dead, obviously), he takes a literal shot in the dark and kills his prisoner. This sets off a grueling chase that ends with Alex presumed dead.

Then we find Rocky all locked up in the dead girl’s harness. Here begins the only scene in the movie that truly haunts me. Because this is the justice system that we have established, Rocky has to give him a baby. And as if that concept isn’t bad enough on its own, he hoists her up with the harness, suspends her in mid-air, and pulls out a container of unspeakable human fluids. I’m gagging and wishing I’d had a third margarita. The whole theater is screaming. And just as he’s about to do the deed, Alex comes back from the dead to knock the old man out and unstrap Rocky.

Alex is presumed dead one more time before coming back to die once and for all for Rocky, who gets away and makes it to California (perhaps a drastic oversimplification of the final hour of the movie). The rest of it isn’t memorable. This movie is much more complicated and even more stressful than the trailer let on. It’s not just a jumpy, or campy summer horror flick. It’s an episode of Fear Factor.

Word to the wise: don’t go to see Don’t Breathe with your parents or younger brother or anyone you don’t want to look at semen with.
You walked into the golden gilded vaulting ceilings of the Carnegie Music Hall — hallmarks of old money — and they were aglow with the pulsing neon pastels of LED shells and vibrating with the sounds of some of the hottest electronic artists of the local music collectives VIA and Hot Mass.

The event was the Carnegie Museum of Art's NIGHTTIME Party from 7 p.m. to 4 a.m. this past Friday, Sept. 9, which was held to kick off the Hillman Photography Initiative's LIGHTIME year-long series.

The evening began with smaller events in the Carnegie Museum of Art itself with some new installations of light based art and an interactive three-dimensionl time lapse of the Forbes and Craig intersection where you are able to "move through time" by moving your body.

These exhibits existed along side the traditional art museum exhibits, only augmented by a photo-booth style event in the middle and the distant, subtle oozing of electronic beat and bass through the walls and floors. The CMOA has been working at making these kinds of late night events with contemporary DJs and bands a more regular thing in an effort to make the museum more "relevant" and "approachable."

However, these events still continue to be a bastion of a specific kind of elitism, that is merely the yuppier, new-money version of the gilded columns and expensive paintings housing this event. Beginning with the $25 entrance fee, the event primarily focused on the party side and less on the art. The event is actually the kick off of a year-long photography initiative looking at how light can be used to tell stories, with the themes of perception, environment, movement, and social justice.

To be fair, the information about these topics and this series were on fairly underwhelming information cards and the exhibit parts were somewhat unclear. However, the the general vibe of the event-goers was focused on seeing and being seen rather than finding out more about the art itself.

The typical interaction many of the partygoers had with the exhibits was in drunkenly stumbling past them. The sense of trendy elitism aside, this event was all around a fantastic and surreal landscape of techno and bright lights reflecting on the facades of this parallel world of gold and marble as people danced with hula hoops and balloons and flower crowns.

As a nightclub, the event and experience were well designed. As an art series, conceptually it is very interesting and should be exciting as these photography exhibits are unveiled over the year.

However, it feels like the party aspect in some ways relegated the art side to being a temporary diversion or backdrop for these young professionals dressed in their designer clothes, rather than promoting the art.

Theodore Teichman | Photo Editor
Dorm Storm
Carnegie Mellon’s a cappella groups take a tour of the freshman dormitories and enthral

It was quiet at 8 p.m. on Tuesday night in Mudge. The last dewey drops of the afternoon rain were settling into the cobble stone flooring around the koi pond, and the grass took on a lustrous sheen that glowed under the dim light being thrown from street lamps around the courtyard. The printer was attended to a couple times, and I sat with my camera to my right and a little potted plant to my left, on the damp steps down to the courtyard, because I seemed to know what was coming better than the unsuspecting residents of the mansion.

As the time approached a quarter to nine, muffled voices began to fill the air, along with the shuffling of footsteps. First-years all around began to take note of the congregation developing in the lobby and moving into the courtyard, and shifted their attention to finding seats or good places to stand.

“What’s going on?” I heard a voice whisper behind me.

“I think these are the a cappella groups,” another responded.

I tapped my fingers on my knees in excitement and steadied my hand on my camera ready to listen, as Counterpoint took center stage and introduced themselves.

As the first years poured in, so did their chances of getting involved in the Carnegie Mellon community. With the Activities Fair this Wednesday, and over 150 organizations present to pull people in, picking activities that will shape your college career can be a daunting experience. Thus, to alleviate some of the confusion, groups around campus find other ways to reach out and find students, and spark intrigue where it may have not been expected.

One of these events is now the famous and highly attended Dorm Storming event hosted by the various a cappella groups around campus. Dorm Storming takes place in freshman dorms the night before the Activities Fair, and constitutes many short performances by the a cappella groups around campus. I had the opportunity to sit in on the Mudge wave, which was the first in the Morewood Avenue leg of the groups’ tour.

The groups in attendance, as well as the songs they sang over in the Mudge courtyard, were as follows:

**C#:** A soulful co-ed a cappella group with a choir counterpart known as Db (D-flat).
Song Performed: Super Smash Bros Theme Medley
Highlight: Definitely the song choice, with lyrics in Latin.

**Saans:** An all-female South Asian group that performs upbeat fusion mash-ups, bringing the west and the east together.
Song Performed: Mash-up of “Nagada Sang Dhol” (from the Bollywood movie Ram Leela) and “Here” by Alessia Ciara
Highlight: What made this mash-up work so well was the ease with which the both the songs and the leads’ voices melded into one another.

**Soundbytes:** A co-ed group with wonderful spunk and deep, jazzy vocals.
Song Performed: “Let’s Get It On” by Marvin Gaye
Highlight: Catherine Mondoaa’s incredibly smooth lead vocals and the liquid chocolate lull of the rest of the groups backing vocals. Always a treat to listen to the Soundbytes.

**Counterpoint:** An all-female group that continuously prove what a powerhouse they are.
Song Performed: “What You Don’t Do” by Lianne La Havas
Highlight: Seeing Kristen Smith move away from vocal percussion and flaunt her stellar pipes. I also want to acknowledge the beautiful smiles that Counterpoint always dons while making great eye contact with each other and the audience.

**Joyful Noise:** The co-ed Christian group on campus, with chilling sets and glorious chemistry.
Song Performed: “Bleeding Love” by Leona Lewis
Highlight: This entire song. I remember hearing it for the first time at almost midnight a cappella last year and squealed when I heard the first few seconds this time. Phenomenal from all angles.

**Deewane:** The all-male South Asian group that pulls in singers and music lovers of all ethnicities to indulge in some good old-fashioned Bollywood serenading.
Song Performed: Mash-up of “What Makes You Beautiful” by One Direction and “Subha Hone Na De” (from the Bollywood movie Desi Boys)
Highlight: Deewane’s incredible energy is always infectious, and I would like to apologize here for being the only one to clap incredibly off-beat during the “What Makes Your Beautiful” segment of the mash-up. Everyone in the audience was bobbing their heads and singing along where they could. Great atmosphere.

**Treblemakers:** Co-ed and polished, always full of surprises.
Song Performed: “I’m on a Boat” by The Lonely Island
Highlight: Sunglasses and attitude. The Lonely Island never really gets the credit it deserves, and I appreciate this rendition of one of my middle school favorites a little more everytime I see it.

**Originals:** The runners-up from the 2016 Varsity Vocals International Championship of Collegiate A Cappella (ICCA), this all-male group is full of finesse.
Song Performed: “I Can’t Feel My Face” by The Weekend
Highlight: The Originals use their voices and body language to bring a whole new layer to all the songs they do. At times it felt like I was listening to something that had been digitally manipulated, and as always I felt goosebumps running down my arms.

A cappella is, and will be for many years to come, a very integral part of our community here at Carnegie Mellon.

Whether it’s the Soundbytes singing at the Hillary Clinton rally late last academic year, the Originals making their way to the ICCA finals in New York, or even Almost Midnight A Cappella, with all the groups around campus, the music and vibes that linger in the air long after the last bar is sung are always memorable.

It is with this in mind that I was drawn back to my freshman dorm once again, and hopefully Tuesday night was an opportunity for many future a cappella sings to find a group they connected with and want to audition for.

Apeksha Atal | Assistant Pillbox Editor
Sterling Archer will leave you in splits

The name’s Archer. Sterling Archer. A super spy who’s as deadly as he is juvenile and irresponsible. Add to this one of the most hostile workplaces you’ll ever see on TV; a spy agency run by his dominating mother. To this, also add his ex-girlfriend, another super spy, a ditzy receptionist, the genetic clone of a genius Nazi scientist, an HR representative with an eating disorder, and a socially awkward accountant, and you’ve got yourself a TV show that is as intriguing as it is infuriating.

If you’ve ever wanted to be a super spy, you’re exactly like most of us. When you see characters like James Bond or Ethan Hunt, dressed to kill, deadly and charming, it is impossible not to want to live that life. If you could only be let loose in that glamorous world, right? With no consequences?

Archer lets you live that life, and with a lot more humor and fun. Think James Bond meets Arrested Development and hop the whole thing up on steroids. It’s got plenty of references to sex, drugs, alcohol, and violence.

Although it is an inappropriate animated show, it’s a very different beast than, say, The Simpsons or South Park. It’s been drawn much more intricately, and while each individual scene looks like a comic book strip come to life, the frames are further apart than you’d expect, and the animation has this really unusual and janky feel to it that’s not as smooth as other shows.

Archer starts some of the most talented voice actors out there; with names like H. Jon Benjamin, Judy Greer, and Jessica Walters, you will very quickly have a connection with all the characters, and will know what they’re like.

If you like constant rapid-fire one liners that leave you in splits, this is the show for you. There are very few serious moments, and the ones that are there are very quickly broken by Sterling Archer being the total idiot that he is. He’s able to not take things seriously, and the ones that are there are very quickly broken by Sterling Archer being the dead idiot that is. Sterling Archer has the ability to not take things seriously, and the ones that are there are very quickly broken by Sterling Archer being the dead idiot that is. sterling Archer’s childhood issues play a huge role in how he is today, and him being a deadly super spy just makes it all the more interesting. Imagine having your mother be your boss, all while you’re the most feared spy and assassin in the world. That’s right, you can’t. Watch Archer and you won’t have to.

Sterling Archer, a suave superspy on the surface, is a spoilt and irresponsible womanizer who always seems to get away without any consequences for his actions.

Sterling Archer takes the slick, suave, super spy stereotype and rips it to shreds. If you enjoy guns, explosions, cool gadgets and other spy movie tropes, this show will reel you in and subvert every expectation you might have in whatever way you’d least expect it. It’s on Netflix, and there’s multiple seasons of it. You’re welcome.

Rohit Harlalka | Staff writer
X-Men: Apocalypse

The grand conclusion of the X-Men saga, Apocalypse, puts our mutant heroes through their most trying ordeal yet. An ancient mutant named En-Sabah-Nur, played by Oscar Isaac, who ruled the world as a God millennia ago, has risen again to wipe out modern civilization and remake it in his image and reclaim his place as principal deity and ruler. In the process, Sabah-Nur runs up against the X-Men, led by Charles Xavier. Faced with their toughest enemy ever, the X-Men must make decisions that will leave permanent scars on every one of them.

Apocalypse touches on several interesting themes — leadership, family and belonging — and takes familiar characters in interesting new directions.

Shreeyagya Khemka | Junior Staffwriter

There is nothing like discovering a great movie on Netflix on a lazy Saturday morning after a crazy night out on Friday. You wake up in a daze, and your mind doesn't help by letting you know that Monday is far away. So you turn to social media; you go through your Facebook newsfeed, you buzz through Buzzfeed articles, you checkout Instagram, and you check snapchat for reminders of exactly how crazy last night was. Finally, you turn to Netflix, browsing through the titles of things you don’t want to see. However, you decide that today you are going to take a chance and watch that one movie that doesn’t look that tempting in the hope that it is something original, something that makes you smile, something that makes your day. You find Tokyo Fiancéé.

This movie is told from the perspective of Amélie, a 20-year-old Belgian girl who was born in Japan. Although Amélie was born in Japan, she only lived there until she was five. Now she returns to immerse herself in Japanese culture. To support herself and her Japanese lessons she starts teaching French to Rinri, a boy from a wealthy traditional Japanese family, who, ironically enough, aspires to emulate European culture. Soon they start dating and the story progresses with Rinri showing Amélie his Japan.

This is when we are transported from our couches and chairs — or, in my case, bed — to Japan and taken on a grand tour by a local. I love movies which transport you to different places and immerse you in different cultures. Movies have this ability to give you the feel of a place, and that is exactly what this movie does so well: it makes you feel like you are in Japan.

Yes, yes, I hear you movie buffs chanting Lost in Translation by Sofia Coppola — Yes, I have watched it! Yes, I really liked it! But let’s not be so lost in translation anymore! Let’s attempt to understand each other. That’s what this movie is about: Amélie’s attempt to understand Japan, and to understand Japan through Rinri.

This happens in several ways, such as when Amélie visits Rinri’s home. We get to see all the ultra-modern amenities in his kitchen and his robot pet, but we also get to see a hidden basement full of old books and antiques. Another way is through Rinri’s preferences: his Yakuza films, his karaoke, and his liking for pole dancing clubs. We also get to understand Japan through the couple’s adventures. One scene stands out among others — Rinri takes Amélie to see the trains, and behind the train lines is a man who sings when the trains are passing by. Amélie asks why the man sings in that spot since it’s impossible for him to hear his own voice. To this, Rinri responds that he doesn’t want to disturb anyone.

Other than getting Japan’s image right, this movie also does little things that make me smile. For example, whenever Amélie imagines her future, it is shown inside a traditional Japanese house with Japanese music. In one instance, when Amélie imagines that Rinri has become her Japanese lover, she breaks out into song and dance wearing a shirt with the Japanese flag on it and singing in Japanese. These scenes really help dissipate the tension of the film and add a little humor to it. Another thing that made me smile while watching the movie was how it introduces another western girl, a French woman who, like Amélie, wants to be Japanese. The movie progresses to show her getting married to a Japanese man; this serves as a great parallel to Amélie and Rinri’s story. One more thing that made me smile was the way food is shot in the film. There is a lot of it, and it looks really really good! You have been warned: do not watch this film on an empty stomach!

Having mentioned these great things, I have to say that every movie does have its flaws. There was an entire section of the movie about Amélie rediscovering herself when she got lost while trying to climb a mountain that I didn’t quite get the significance of. Also, in a crucial scene in the film, when she is about to mention something important, an octopus literally got her tongue. Eating live octopus actually is a thing in Japan. I thought that was a little too ironic, a little too coincidental.

Imperfections and minor quibbles aside, I really enjoyed the movie. The ending, I can say without giving too much away, is bittersweet. You may wish for another payoff, but with the way the story goes no other payoff would have truly satisfied you as a viewer. So, give it a watch on a lazy Saturday — maybe it will leave a smile on your face too.

Abhishek Tayal | Pillbox Editor

Movies In McConomy

X-Men: Apocalypse

Friday Sept. 16th
8 p.m. & 11 p.m.

Sunday Sept. 18
9:45 p.m.

The grand conclusion of the X-Men saga, Apocalypse, puts our mutant heroes through their most trying ordeal yet. An ancient mutant named En-Sabah-Nur, played by Oscar Isaac, who ruled the world as a God millennia ago, has risen again to wipe out modern civilization and remake it in his image and reclaim his place as principal deity and ruler. In the process, Sabah-Nur runs up against the X-Men, led by Charles Xavier. Faced with their toughest enemy ever, the X-Men must make decisions that will leave permanent scars on every one of them.

Apocalypse touches on several interesting themes — leadership, family and belonging — and takes familiar characters in interesting new directions.
Wave of Nostalgia
by John Atkinson

Animal Addition
by xkcd
I’m My Own Mascot by Kevin Bolk

Saturday Morning Breakfast Cereal by Zach Weinersmith

Secretly, Ed wondered if there were an easier way to deliver mail-order weaponry.
Sudoku — super hard difficulty

Maze — very difficult

Footprints by xkcd
horoscopes: binge-watching for your sign

Aries
March 21–April 19

*Doctor Who* — You are a strong and caring leader. You want to save the world from destruction, even if all you have to work with is a ball of string and a toaster. In your next chunk of free time, watch some *Doctor Who*.

Taurus
April 20–May 20

*Bones* — You are curious, but apprehensive of change, much like the main character of the show, Dr. Temperance Brennan. Watch a few episodes this week!

Gemini
May 21–June 21

*Orphan Black* — Take your independent trailblazing to new levels with the seven clones and fast-paced storyline of *Orphan Black*.

Cancer
June 21–July 19

*Gilmore Girls* — You are a bit of a contradiction, dealing with obstacles as they present themselves. You always put others’ problems before your own.

Leo
July 20–August 20

*How I Met Your Mother* — You are honorable and do your best to uplift and care for your friends. You will empathize with the varied characters of this TV show.

Virgo
August 21–September 21

*Criminal Minds* — It takes a sharp mind and observant nature to truly fall in love with the characters of this show. Dive into the analytical world of *Criminal Minds*!

Libra
September 22–October 20

*Parks and Recreation* — No one is more dependable and diplomatic than Leslie Knope (except you, of course).

Scorpio
October 21–November 20

*The Office* — You are passionate about everything you do, even if it’s being Assistant (to the) Regional Manager of a paper supply company.

Sagittarius
November 21–December 21

*Game of Thrones* — You are a strong and independent Khaleesi who needs no Khal! Explore your fiery nature with some *Game of Thrones* episodes.

Capricorn
December 22–January 19

*Orange is the New Black* — Even in the roughest of situations, you know that slow and steady wins the race. You are willing to wait (and sometimes power-move) your way through the bad times.

Aquarius
January 20–February 19

*Grey’s Anatomy* — You are totally capable of being a strong-willed surgical intern who also deals out hella brutal but honest advice.

Pisces
February 20–March 21

*Star Trek* — You are down to earth while simultaneously being an adventurous space traveller who sometimes messes up intergalactic things (but always means well)!

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crossword

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Across:
1. Pervasive Clown
5. You, in Peru
10. ABC drama about plane crash survivors
14. Footnote notation
15. Nary a soul
16. Stuff in a dump
23. Steely Dan album pronounced like a continent
25. Got on everyone’s nerves
33. Let in or let on
34. Man with a code
35. Prohibit
36. They may be black or green
38. ___ Waldo Emerson
39. Street in “Freddy vs. Jason”
40. ___ colony
41. With “en,” hot, in sports slang
42. Showed disapproval
45. Western tribe
46. Remote cells
47. Evening get-together
50. Venus de Milo knockoffs?
52. Stat for Chris Sale
55. Type of auto found in the 3 other longest puzzle answers
57. Farm female

Down:
1. Kid’s wheels
2. Ruler of the Valkyries
3. Get-up-and-go
4. Mantra sounds
5. Like zombies
6. Rise dramatically
7. Oodles
8. Word with tight or loose
9. Reduce to rubble
10. Pretentious
11. Writing on the wall, so to speak
12. Complacent
13. Bikini parts
18. Joe Namath, notably
19. Came up
20. Leafy Tolkien character
21. Boomers’ kids
22. Round gaskets
23. Drops from above
24. Flowery, as prose
25. Provide fare for an affair
26. “A Passage to India” heroine
27. Savory taste
28. Some refrigerators
29. “Interstellar” director
30. Things in a hold
31. Fund, as an academic chair
32. Got money for
33. Team that hasn’t won a World Series since 1908
34. Fizzle (out)
35. Elaborate spread
36. French police force
37. Steinway competitor
38. Virtual citizens in a video game
39. “Interstellar” director
40. ___ colony
41. With “en,” hot, in sports slang
42. Showed disapproval
43. French police force
44. Steinway competitor
45. Virtual citizens in a video game
46. Doing the job
47. Evening get-together
48. Deuce follower, in tennis
49. Teeny
50. Cracker brand
51. Chamber effect
52. Part of MFA
56. Writer LeShan
57. Farm female
calendar

wednesday
09.14.16

Heart Strums: Concert of Persian Classical Music
Kresge Theater, 8 p.m.
Admission: General $30, Student ID $20.

Persian music is famous for its intricacy, whirling melodies, and deeply emotional nature. Heart Strums features four maestros — Hossein Alizadeh, Hossein Behroozinia, Behnam Samani, and Saba Alizadeh — performing a series of pieces meant to take the audience on a grand journey from melancholy and romance to joy and adventure.

Sound Series: Yo La Tengo Feat. Lambchop
Carnegie Music Hall, 8 p.m.
Admission: General $20, Student ID $15.

Yo La Tengo is one of the most respected and unwavering bands in the indie scene. They’ve put out more than 14 albums over the course of 30 years. In a similar vein to classic 60s indie acts such as The Velvet Underground, Yo La Tengo can seem less like a band and more like an experiential project. For their first concert in Pittsburgh, Yo La Tengo is joined by Lambchop, a Kurt Wagner-led experimental country group from Nashville.

saturday
09.17.16

Shadyside Farmers Market
Liberty Elementary School
9 a.m.–12 p.m.
Admission: Free.

The Shadyside Farmers Market brings in vendors from across the Pittsburgh area that stock everything one might need for a week of delicious, fresh supplies, including produce, eggs, chicken, beef, pork, trout, hummus, flowers, herbs, honey, olive oil, vinegar, fresh pasta, cold-pressed juice, cheese and more. Also featured will be live music from 10 a.m. onwards by Greg McVicker.

AfroArt PGH
Flagstaff Hill
12 p.m.–8 p.m.
Admission: Free.

AfroArt PGH is a celebration of black culture and innovation in the Pittsburgh area. The event will feature music, activities, speakers, and visual art meant to promote a positive image of the black community in Pittsburgh. Participating organizations include SPIRIT from Carnegie Mellon, BAS from the University of Pittsburgh, BSU from Carlow University and BSU from Point Park University.

sunday
09.18.16

Mac Miller
Stage AE, 7 p.m.–10 p.m.
Admission: Advance Booking $29.50, Day of Show $35.

Pittsburgh native Mac Miller returns to his hometown for a performance as a part of his GO:OD AM Tour. The rapper is famous for his unusual view of suburban life, unique take on otherwise ordinary themes, and a delivery that is as iconic as it is brilliant.

Sun Ra Arkkestra
New Hazlett Theater
7 p.m.–10 p.m.
Tickets Available on showclix.com

Head on over to see the band of the late Sun Ra, a self-proclaimed alien space god, who aimed to spark change through his unique persona, surrealist ideologies and moving music in both arts and social action. Ra’s influence over a plethora of both modern and contemporary jazz musicians is unparalleled, and this event is one of the best opportunities out there to see his Arkkerstra up close and in the flesh.
Send Silence Packing was a 4-hour-long outdoor art exhibit on the CFA lawn meant to spread awareness about mental health on the Carnegie Mellon Campus. Organized by Active Minds @ Carnegie Mellon, the exhibit featured the schoolbags of students who took their own lives from across the country, donated by the parents of the students, often with a touching message.