Assistant Professor Isuru Godage watches student Greg Mendez-Weeks work on a robotics project. See page 2.
Picture a lab. If you think of white-coated, goggle-wearing scientists holding beakers and peering into petri dishes, think again. The 19 research labs in the College of Computing and Digital Media (CDM) feature high-end computers, cutting-edge technology and collaborative work stations. Computer science PhD student Diego Castro, who spends many hours in the Robotics and Medical Engineering (RoME) Lab working on his dissertation research, says lab access has been indispensable to his work. “Without this lab, I wouldn’t be studying at DePaul,” he asserts. Peek into two newer labs—RoME and the Cyber-Physical Systems Engineering Project Lab—below.

Robotics and Medical Engineering Lab

In the RoME Lab, students are manufacturing and experimenting with “soft” and “continuum” robots that have the potential to affect health care, disaster response and space exploration. Unlike traditional metal or plastic robots that are operated by motors, these robots are made of flexible materials and use pneumatics (air) and hydraulics (fluids such as water and oil) to generate motion. “The main goal of our research is to create robotic components that can be used safely with humans,” explains Greg Mendez-Weeks, a game design major and undergraduate research assistant who has worked on the development of continuum robotic arms.

The lab, which is overseen by Assistant Professor Isuru Godage, opened in fall 2017 and has already established research partnerships with Cornell University, Vanderbilt University, Clemson University, the University of Tokyo and other institutions of higher learning. One recent paper introduced an MRI-guided, minimally invasive robot designed to help aspirate blood clots safely.

Godage notes that robotics is a multifaceted, collaborative field that fits well with ongoing research in the School of Computing (SoC). The lab facilitates interactions across majors and is truly a home away from home for many students. “We are like a family who you can talk to, work with and rely on,” Castro says. “It’s great having a place to work on the things you love and learn at the same time.”

Cyber-Physical Systems Engineering Project Lab

Last fall, CDM bid adieu to the Physical Computing Lab and said hello to the Cyber-Physical Systems Engineering Project Lab. The new name reflects recent changes at CDM, including the establishment of a BS in Cyber-Physical Systems Engineering (CPSE) in fall 2017 and the creation of the Idea Realization Lab, a dedicated makerspace. The rebranded lab, which opened in fall 2018, primarily supports students taking engineering classes.

“Engineering is a new direction for DePaul, and no existing lab space had the specialized tools, equipment, setup or software required for the training of engineers,” says Godage, who is co-director of the lab. In CPSE courses, students gain familiarity with these methods and materials as they develop autonomous rovers, smart appliances, sensor networks and other systems. Three new, state-of-the-art electronic benches feature a full array of capabilities and tools, including oscilloscopes, function generators and multimeters. “These will be used to test and analyze electronic circuitry,” Godage says. “Students working in this field need to be proficient at using these tools.”

The CPSE program is based on “firm theoretical foundations and fundamental engineering design principles,” says Professor Ljubomir Perkovic, co-director of the lab, who adds that engineering students complete rigorous math and science requirements. But hands-on experiences are critical to help students translate theory into practice. Most of the CPSE courses feature a weekly lab component. “This lab is the space where the first few generations of DePaul engineers will gain their engineering mastery and experience,” says Perkovic.
I deliver posters around the city. Then, once the festival begins, students tackle prep work, such as assembling welcome packages, researching filmmakers and artists, and gaining an insider’s knowledge of the industry.

Film Festival Experience

Champs-Élysées Film Festival

The new Film in Paris program, established last year, gives a handful of students an opportunity to live in the French capital with host families, take classes at the Alliance Française and intern with the Champs-Élysées Film Festival in June. “With two-thirds of filmbox office revenues coming from international territories, it’s a great way for students to learn about the industry beyond Hollywood,” says Assistant Professor Timothy Peternel.

Brad Sommer, a senior majoring in film production, has spent time abroad on both volunteer and film programs, but none of his prior experiences compared to this one. “Those three months completely changed my life,” he says. Learning to navigate the internship despite not speaking French proved invaluable to Sommer’s sense of self-confidence. “The fact that I don’t speak French and navigate the internship was such a great confidence builder. I think that my connections with distributors and other independent filmmakers, “I loved being in the hustle and bustle of the festival,” says Emily Broderick, a senior majoring in film and television. She participated in the program with Sommer and two other students last spring. “There’s a lot of pressure and it’s so fast-paced, but that’s where I thrive. I had the most amazing time running around, completing tasks and being part of the team that made it all possible.”

Broderick hopes to make movies one day, but in the meantime, she took on an internship with the Chicago International Children’s Film Festival because she enjoyed her Paris experience so much. “I’m exploring going into film festival work to build my connections with distributors and other independent filmmakers, “I’m exploring going into film festival work to build network and gain an insider’s knowledge of the industry.”

Students from the Film in Paris program enjoy their film festival experience.

“BEING SURROUNDED BY OTHER WRITERS AND FILMMAKERS REINFORCED THE EXCITEMENT AND PASSION THAT I HAVE FOR THIS WORK.”

At Sundance

In January, staff from SCA and DePaul’s Division of Mission and Ministry attended the Windrider Forum at the Sundance Film Festival in Park City, Utah. The weeklong forum focuses on the intersections of theology, religion and filmmaking. DePaul is hoping to launch a new academic study abroad program in collaboration with the Windrider Forum and Sundance in 2020.

15 SCA graduate students and five members of the faculty attended the Austin Film Festival (AFF) last October. “I call it ‘Woodstock for screenwriters,’” Assistant Professor Scott Myers quips. “It’s unique among film festivals because it highlights the work of screenwriters and television writers.” The DePaul contingent joined more than 1,000 other attendees for four days of workshops, talks and events. While students were responsible for transportation, lodging and food, the college covered the costs of each attendee’s producer’s badge, which gave students access to a plethora of experiences and opportunities associated with the festival.

Leah Kunath, an MFA in screenwriting student, had never been to a film festival before, but she found it incredibly affirming. “Being surrounded by other writers and filmmakers reinforced the excitement and passion that I have for this work,” she says. “This job that we get to do is so cool, but sometimes, when you get stuck in the minutiae of everything, it’s easy to forget that.”

One of her favorite panels was “Writing the Second Act,” a challenge for many screenwriters, Kunath included. Since returning to DePaul, Kunath has relied on the tips she learned from the writers on the panel. “As a writer, your responsibility is to labor over every single aspect of the script—leaving no stone unturned and no aspect unaddressed,” she says. “This kind of 360-degree focus is very hard to attain, but it’s integral to great storytelling.”

Other attendees left AFF with advice and encouragement from the five DePaul faculty members who presented “DIY: Making Short Films, Web Series and Micro-budget Movies.” The panel was so popular that it was standing room only, and Myers says feedback from the audience was very positive. He adds, “It was also an excellent way to promote our school, university, students and faculty.”

Another DePaul nod came from the outstanding showing of “Attachment,” a script by Celia Blundo (CDM MFA ’15) and Megan Binne (CDM MFA ’15) that made it to the semifinals of the AFF Screenplay and Teleplay Contest. The contest is considered one of the two most notable screenwriting competitions in the country. A semifinal result means “Attachment” was deemed in the top 2 percent of the record 10,500 scripts submitted in 2018. “It’s a testament to Celia’s and Megan’s talent, as well as the education they received at DePaul,” Myers says. “It should encourage them to keep writing and growing as creatives.”

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“What is data science?”

At the start of CDM’s first Data Science Academy in June 2018, only about one-third of the 13 high school students enrolled in the program thought they could answer that question. By the end of the week, 100 percent of the students felt they knew the answer. This change was a direct result of the Data Science Academy’s jam-packed syllabus, dedicated instructors and intellectually curious students. “So many disciplines fall under the field of data science, including statistics, algorithms and machine learning,” says Professor Daniela Raicu, one of four DePaul faculty members who devised the program. “Our team was enthusiastic to translate our experiences to the high school level.”

A total of 173 students from Chicago Public Schools (CPS) applied for 15 available slots, and 13 students completed the training. The juniors and seniors had all completed a computer science introductory course, as well as geometry and/or algebra; the majority of those accepted held GPAs of at least 3.5. One of the academy’s major goals was to raise awareness among high school students of data science as a potential field of study and career option.

“There are limited opportunities for high school students to learn and understand this exciting field,” the DePaul faculty members wrote in their recap report. “As a result, not many students consider pursuing data science as a major in college or as a career, which is contributing to the pipeline issue in meeting increasing demand for professionals in the field.”

Additionally, women and people of color are not well-represented among those who are majoring in the field and entering the workforce. This fact spurred the academy’s creators to be intentional in accepting a diverse range of students. More than 50 percent of the attendees were female, 50 percent were Hispanic, 25 percent were African American, 17 percent were Asian, 17 percent were Caucasian and 8 percent were Native American (students could check more than one box).

“Students were exposed to the big world of data,” says Professor Bamshad Mobasher. “Our team was trying to make it exciting for students of data science as a potential field of study and career option.”

The curriculum incorporated hands-on learning, industry speakers and research presentations from DePaul students. Datasets from Divvy, the Chicago bike-sharing service, and music-streaming application Spotify helped students understand how data science is used in the “real world.” Students explored the full data science cycle, starting with data cleaning, moving on to visualization and model building, and concluding with validation. As students discovered how data can be extracted and analyzed through computing techniques, they also honed their ability to think critically about data.

Survey results indicate that students were very pleased with the academy overall. “It was fascinating to see how graphs could tell a story about data,” one student noted, while another said, “I loved learning new applications and ways to analyze and visualize data.”

“The idea was to bring research here and not just show off our own.”

As coordinator, Quinn worked in tandem with DI to promote the Oct. 27 event. Students, professionals and faculty from across the country submitted presentation proposals, which were blind-peer-reviewed by representatives from DI. More than 30 abstracts—the highest number DI has received for a colloquium—were winnowed down to 16 spots.

The final lineup of topics included comfort toys, created by the son of a woman with who suffered from epilepsy; embracing randomness in design, from a self-described control freak; and fat bias in graphic design, from an author and designer who created a typeface based on her body’s proportions.

“There was a big focus on the power of design to create impact, as well as design’s ability to help shape our worlds,” Quinn notes.
A billboard was partly responsible for getting Chris Wade (CDM '15) to DePaul. An avid gamer, Wade noticed posters on campus for “Octodad,” the popular video game created by a group of DePaul students, when he visited as a high school student. “I thought it was interesting,” Wade says. “At the time, it was not even on my radar to do game development.”

Wade was still undecided on a major when he moved to Chicago from the suburbs of Cleveland. The greater appeal was the lure of a bigger city and the fact that friends from high school were heading to DePaul as well. But at orientation, the computer game development major caught his eye again.

Fast-forward eight years, and it’s clear that this major was the right choice for Wade. In addition to being a developer and artist at Austin-based Owlchemy Labs, Wade is the creator of “Sausage Sports Club,” a Nintendo Switch game that was released in July 2018 to nearly uniformly positive reviews.

Wade began working on “Sausage” at DePaul. As an officer of DeFARG, CDM’s student group for those interested in gaming, Wade attended a conference in California where a presentation on physics engines—the underlying tool set that determines how physics works in games—motivated him to start experimenting.

“In most games, you don’t have much control over your character,” Wade explains. “You’re this box character who can’t interact with the world that much. But in “Sausage,” you can make your character’s head flop around, so you have movement and jumping. You can even move your whole body like this crazy worm thing.”

The four main characters in “Sausage” are huggable animals with elongated necks who bop across Sports Club Island, competing with the kind of work I like to do, which is physics games and funny games that are nonviolent, family-friendly and colorful,” Wade says. “I’m learning a lot.”

Outside of work, Wade is playing around with some new ideas—“Sausage” at Indie City Co-op, a game developers’ coworking space in Chicago.

When Wade felt that “Sausage” was finally ready for the masses, he approached Nintendo reps at a gaming convention. He believes that meeting the reps in person was a key step toward selling his product. “When I sent a follow-up email, they remembered me and knew I was serious about my game,” Wade says.

Making connections in the industry has been vital for Wade, and he’s grateful for DePaul’s assistance in that regard. “The biggest thing that I took away from DePaul is that you build a cohort of fellow students doing good work, and you give each other feedback and lift each other up,” he says. “That ultimately turns into your first professional network.”

Indeed, another DePaul gaming student recommended Wade to Owlchemy. The company approached Wade after college, and then again in 2017. At that point, the timing was right, so Wade accepted the offer. “The kind of work they do aligns really well with the kind of work I like to do, which is physics games and funny games that are nonviolent, family-friendly and colorful,” Wade says.

“Every course I have taken is directly applicable to my job.”

Sellman is eager to share what she has learned at DePaul with her NGA colleagues. “Every course I have taken is directly applicable to my job,” Sellman asserts. She adds that predictive analytics and data science are key growth areas for the organization.

“My plan is to leverage my degree to provide technical and data expertise within the government and to expand into the business side of plans, budgets and programs to influence how technical systems are built, facilitate integration and inform broader architectural designs,” Sellman says. “I’m excited to apply what I have learned at DePaul to help my agency and create new opportunities for my career.”

Support talented and motivated students like Sierra Sellman by making a gift to one of the funds below.

Supporting scholarships for students in the College of Computing and Digital Media.

Thanks to university software and free online apps, Sellman feels connected even though she is 700 miles away. Sitting in her home office outfitted with large monitors, wearing comfy clothes and holding a hot cup of coffee, it’s almost like Sellman is on campus. But when her two children get home from daycare, she can take a break, eat dinner with them and tuck her kids into bed. Then it’s back to studying late into the night.

Visit give.depaul.edu/intheloop to make your gift now.
SUPPORT FOR STUDENTS OF COLOR
The new CDM Students of Color organization is a preprofessional student group focused on providing students of color in the college with a supportive community, resources and leadership development opportunities. Noting that the tech industry emphasizes diversity and inclusion but employs only a small percentage of people of color, the organization offers networking events, job-related workshops and community gatherings to help prepare students to become leaders in their fields.

GRANTS ROUNDUP
Faculty continue to receive prestigious grants for their research. Recent awards include the following:

- The National Science Foundation awarded a $300,000 grant to Professor Daniela Rau and Associate Professor Enid Montague (top left and right) for a research project on data science, human-computer interaction and health care.
- Assistant Professor Sheena Erete (bottom left) received $16,000 from the Pritzker Family Foundation for her project “Triangulated Data Analysis of Violence Prevention Mobile Application.”
- The National Security Agency granted Assistant Professor Filippo Sharevski (bottom right) a subaward of $16,056 from Purdue University for information security research education.

CALIFORNIA CONNECTIONS
On Oct. 4, alumni from SCA and The Theatre School gathered at Sunset Gower Studios in Los Angeles to network across the film and theatre industries. David Miller, dean of CDM, and John Culbert, dean of The Theatre School, shared university, program and college updates with nearly 130 attendees.

BRAVO! BRAVO!

- The School of Cinematic Arts was ranked 11th on The Hollywood Reporter’s list of the Top 25 American Film Schools.
- “Esta Es Tu Cuba,” a narrative short written by Assistant Professor Daniel Klein, won a bronze medal at the Student Academy Awards and a College Television Award for Drama from the Television Academy Foundation.
- Cartoon Brew selected Associate Professor Devin Bell’s “Burnt” as its Short Pick of the Day for July 28, 2018.
- Instructor James Choi, Associate Professor Shayna Connelly and Alex Thompson (CDM MFA ’17) were named to Newcity Film’s 2018 list of 50 Chicago Screen Gems.
- Landing Zine, a zine about fear of flying by Valeriya Shur (CDM ’18), was selected for the Otis 100% Festival of art and design.
- Tim Gamble (CDM ’18), a student in the BS/MS computer science program and a lead data engineer at Enodo, was named one of Chicago Inno’s 25 Rising Entrepreneurs and Technologists Under the Age of 25.

HALF COURT HOOPS
In December, CDM hosted a DePaul basketball game with a special halftime show. Many attendees were amazed to see a video of Dean David Miller sinking a basket from half court. The secret? Green-screen technology and skilled SCA film students.

UP-E SCHOLARSHIP ACHIEVEMENTS
Upsilon Pi Epsilon (UPE), the international honor society for the computing and information disciplines, awarded 2018 scholarships to two SoC students. Craig Michael Bruenger (CDM ’18) received the UPE Scholar of the Year award, while Leonore Leif Kaufmann (CSH ’16, CDM MS ’18) received a UPE Executive Council Award.
Stay connected to DePaul through our online communities, including Facebook, LinkedIn, Twitter, Instagram, Flickr and YouTube. Visit alumni.depaul.edu to sign up today.

Introducing our new alumni blog—the Blue Demon Line! Join us at the Blue Demon Line for an exclusive look into all things DePaul alumni, including in-depth interviews, “DePaul family” recipes, photo contests, tips and tricks from experts, and more!

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