Department of

COMPUTER GRAPHICS TECHNOLOGY NEWS

PURDUE UNIVERSITY | Polytechnic Institute

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FROM THE DEPARTMENT HEAD

As the month of April draws to a close, we are all experiencing something that most of us have never experienced before – the partial or complete quarantine from our co-workers, extended family, and other people we know and care about. This has been a challenge for all of us, particularly our students. While they are making the best of it, the pandemic will change their outlook on life, school, work, and relationships in ways we may not know yet. To that end, the faculty and staff in CGT have been reaching out to them on a regular basis to check on their well-being, and to make sure they finish the semester as well as they possibly can. I am very proud of our faculty, staff, and students for the resilience they have shown in this unforeseen circumstance. On a more positive note, the CGT department has moved forward with approving our first-year core curriculum, which will go in Fall 2021. In the meantime, we will begin creating and editing content for those courses, with focus areas on design, programming, interactivity, mobility, visualization, and other CG fundamentals. In addition, each major will have one course in the first year that will be unique to them, which will allow more opportunities for horizontal integration between the core courses and each major. All of us are looking forward to this new format for our programs and the advantages it will give our students. This will be our last monthly newsletter for the spring semester, and while we may publish a summer edition, we will resume regular newsletters again in the fall. Until then, be well and take care.

My best always,

Nate

JOE MACK, ALUMNUS

Joe Mack has over 23 years of experience in design, interactive media, illustration and computer graphics. Mack graduated in one of the first classes to complete a four-year degree in technical graphics from Purdue in 1993. Some of his roles since have included UX/UI designer, multimedia designer, 3D video game designer, and visual designer.

During his time in the CGT department, Mack worked closely with Dr. Gary Bertoline, and credits him for giving Mack his first opportunity to create illustrations on a Mac computer. Mack's experiences in classes and with the professors gave him the skills and confidence to take on the competitive industry. Dr. Bertoline and other CGT professors left strong impressions on Mack as he left Purdue. He felt that they set an example of excellence for him. "They had professionalism, humor, and depth. They were all great role models."

Although Mack was also learning to design on a drawing table by hand, his exposure to technology early in his career at Purdue helped him create the world's first interactive resume and portfolio, which

he called JobSeek. The product fit on a single Mac diskette. Eager to find his niche in the gaming industry, JobSeek allowed employers to view his portfolio and resume in an interactive format, even before the idea became mainstream on the internet. The unexpected popularity of JobSeek in the news and media led to subsequent job offers around the world that opened a multitude of doors for Mack. (https://mackmedia.myportfolio.com/jobseek)
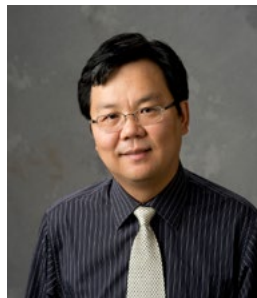
Towards his last few semesters at Purdue, Mack was given the opportunity to help write curriculum with the professors in CGT, which helped him later design courses for middle school and high school students. His passion for education and his skills in design helped him work with teachers to design their content, including online courses, videos, widgets, and assessments. Mack worked during this time as the lead designer on all math products for SAS Curriculum Pathways, the educational division at SAS. He also worked with this group as a Principal Visual UX/UI Product Designer for over 19 years in the Research Triangle Park of Raleigh, North Carolina.

Mack was named one of Purdue Polytechnic Institute's distinguished alumni in 2011. "One of my proudest moments in my career took place when I was invited back to Purdue as a distinguished alumni. It was an appreciated acknowledgment of my work, and an opportunity to speak to the graduating class."

The most impactful person that Mack met at Purdue was his wife, Nancy (pharmacy class of '92). The two met during their time in West Lafayette, and were married in 1992. Nancy strongly emphasized education in their family, and homeschooled their six children. Since her death in 2015, Mack and his children continue to use every experience as a learning opportunity. He feels grateful to Purdue for his education and enjoys camping, gardening, and raising chickens with his children. They currently live near Raleigh, North Carolina.

DR. YINGJIE CHEN

Dr. Chen, of the Computer Graphics Technology (CGT) department, has been working in multi-disciplinary domains for two decades, starting as an engineer before moving towards 3D illustration and animation, and eventually becoming a web designer and Internet system developer. He has been an academic researcher and educator faculty at Purdue since 2012.

From his education and his time in the industry, Chen learned skills related to computer graphics. He has a passion for data visualization because it integrates the domains of data science, human psychology, and design and leads to great potentials. Chen received his Master of Science degree in Information Technology and his Ph.D. in the areas of human-computer interaction, information visualization, and visual analytics, from the School of Interactive Arts and Technology at Simon Fraser University (SFU) in Canada.

Dr. Chen is proud of the CGT department because there are so many possible career paths for each majors. He believes that the classes give the students skills to take with them no matter what they decide to do. An important project that Dr. Chen worked on was an information visualization project that shows students' potential career pathways based on accumulated dataset of Purdue alumni information. It is not only a useful tool for recruitment, but also an elegant resource for undergraduate students to consider and plan their career and future. His research areas cover interdisciplinary domains of Information Visualization, Visual Analytics, Digital

Media, and Human Computer Interaction. Dr. Chen works with students on these topics in his lab, the Purdue Intelligent Visualization and Interaction Library, which is based out of the Heavilon Hall. Currently, there are 12 graduate and 2 undergraduate students working in the lab with him.

This semester, Dr. Chen has been teaching CGT 370 and CGT 575. His graduate level classes have students from different departments trying to use data visualization to solve problems in their real research projects. Dr. Chen's passion is to help students push their research forward, and to teach useful skills that can benefit his students for a lifetime.

Undergraduate students are special to Dr. Chen. "I have to think carefully about each student in those classes because they have such different capabilities. I try to target each student and their abilities to get the most progress out of that individual student."

Undergraduates in his classes study a combination of coding and design, with the ultimate goal of understanding both the science and humanity that go into the field.

PROFESSOR MICHELE WALKER

Michele Walker, a full-time continuing lecturer for the Department of Computer Graphics Technology, works to teach the students at the Purdue University Richmond Campus. Since 2001, she has served a unique role in her local community as a remote instructor.

With that role, Walker appreciates the smaller class sizes because she gets to know her students on a first name basis, and can tailor the lessons to their needs.

"I have the ability to be adaptable and responsive in a smaller class. Sometimes it is challenging to be a part of the department from a remote location. Even with videoconferencing and email you miss that face to face interaction, and technology can be an imperfect means of communication."

Although unconventional, Walker has developed a system that works for her students. Her classes use a combination of Blackboard, Basecamp for file organization, and Discord for live-streaming lectures and sharing screens and images.

Every year, Walker's classes pick a project that focuses on improving their local community. Last fall, her classes began the "Forward Movers" project. Students were directed to pick an organization, cause, or issue that they could help with their technology skills. They focused on various subjects throughout the semester, many of them working with real-world clients in the community. By the end

of the semester, her students had created awareness campaigns, branding and business collateral, and 3D animated prototypes for visualization. For spring semester, students turned their focus inward to develop personal branding and portfolio projects to promote themselves as designers and problem solvers.

Walker began her career with Purdue teaching classes in 3D modeling, animation and game studies. She was able to move into this role with ease because of her related passions.

"Being on a statewide campus means you go where you are needed, and you have to be agile, flexible and adapt rapidly to the needs of the local department. Having to learn new skills gives me gave me a deep understanding of what my students are also going through learning new skills."

Walker acts as not only a teacher for her students, but a mentor as well. Because of her small class sizes, she's been able to pull from her own expertise in multiple fields to help individual students with their projects. "Getting to know all my students on a first name basis allows me to grasp their personal goals, skills and interests. I can work with them one on one to customize assignments to what suits them best."

"By creating assignments like the Forward Movers projects, students are given opportunities to pursue their passions and receive guidance on working with clients and developing their own branding and portfolios. With my years of experience in the field of marketing and design I can advise them on how to navigate those volunteer and freelance opportunities."

CGT SPOTLIGHT - ALUMNUS REID YOUNG

Reid Young, a 2005 Purdue graduate, was a computer graphics technology (CGT) major and a computer engineering minor. Post-graduation, Young did freelance work with his own design firm called Reidesign, LLC. Currently, he works for Fangamer, which grew out of a website created by Young in 1997, when he was only 14 years old. During his time at Purdue, he used it to petition Nintendo to release a video game and learned about the industry from his own company. Eventually, Fangamer transitioned from a hobby to a job. Young eventually made it his full-time operation that sells games and game merchandise.

Young emphasized how important community is to him. By staying connected with childhood friends, he was able to build Fangamer into a successful business. His work community is made up of people from all different backgrounds and career areas, all helping Fangamer succeed. "Due to my fan and friend base, Fangamer had a very successful launch."

While starting a company was not originally one of his career goals, he saw potential in Fangamer. Young thought about other opportunities, but felt invested and connected to his company and decided to continue the journey. "I'll admit that starting a company can be risky, but I'm satisfied with that risk I took," mentioned Young.

To current students of CGT, he says "the best advice I can give is to build up your community because you never know what it could turn into." Young was able to build his successful company through the people he surrounded himself with. This community has been able to support him since the start of Fangamer.

Young acknowledged that, "it is different to build a community due to the impact that social media has on our relationships today, with less face to face interactions than ever." He continues to stand by his values of relationship building, networking, and helping one another.

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