MICHAEL S. CHABIN

Michael Chabin returned to academia and Indiana University after a long career in the computer industry. After receiving a degree in computer and information science at the University of California, Santa Cruz, Michael spent 25 years in industry, working at the cutting edge of interactive computer systems, designing and developing (among other things) computer-animated education tools for clients such as the National Air and Space Museum, the American Bankers Association, and the Harvard Smithsonian Center for Astrophysics. His particular specialty and passion were for creating visualization tools for science education. Among the many projects he is known for are Silkworms in Space, which was part of the Project STARS experiments developed in collaboration with the space shuttle program, and the Stellar Evolution a la Chez Stella, which was part of the Universe in a Classroom project developed in collaboration with the Astronomical Society of the Pacific and the Strasbourg Data Center.

Several years ago, Michael began teaching in the informatics department of the Luddy School of Informatics, Computing, and Engineering. He created from scratch our entire virtual reality (VR) and augmented reality (AR) curriculum, which provides students with access to one of the most exciting technological tools to emerge in the past decade. While the most prominent uses of virtual reality involve video games, Michael encouraged his students to think broadly about the creative application of these technologies to education, science, and human health. Students in his courses certainly learned not only the technical skills required to generate synthetic VR/AR environments and experiences, to capture human motion and facial expressions, to create 3D models using photogrammetry, and to generate and edit sounds and sound effects. They also learned how to apply these skills and tools to practical, real-world situations that helped blind users navigate digital environments, visitors to zoos and museums to better understand and appreciate what they were seeing, scientists to be able to better study the natural world, and medical professionals to better serve their patients.

Michael was instrumental in helping informatics build and operate its VR/AR laboratory, providing students with access to the very latest VR/AR headsets, computer equipment, software packages, motion capture suits, green screens, and digitization tools and scanners. He cultivated partnerships with local educational institutions, including the Indianapolis Zoo. For the IU Bicentennial celebration, Michael received a grant, along with Jon Racek of the Eskenazi School of Art, Architecture + Design, to create an augmented reality application called Virtual Indiana University (VIU). Using VIU, any visitor to the IU Bloomington campus with a camera-equipped smartphone will be able to view and interact with virtual markers placed anywhere on campus. The virtual signs appear as objects hanging in space in front of the viewer. In addition to running on most major smartphone platforms, VIU can also be accessed via Microsoft's HoloLens, Oculus Rift, and other current and emerging AR platforms. Once finalized, the VIU app will be available for free on the App Store, Google Play, and the Microsoft Store and will be available on all of the IU campuses.

Perhaps the most lasting and durable contribution that Michael Chabin has made to Indiana University is his mentorship of undergraduate research projects. Students who take Michael's courses, work with him on independent study projects, or participate in VR/AR lab collaborations with external clients universally praise his enthusiastic, patient, and persistent advocacy of their projects and interests. Even as he has been approaching retirement, Michael is omnipresent in the department. He has a seemingly endless stream of excited students waiting outside his office in search of his advice and encouragement; he has a similarly endless font of energy and interest for serving these students. He is one of the most passionate and committed teachers our department has ever been privileged to employ. There is no question that our VR/AR laboratory and curriculum will continue to be a key draw for students for decades to come, and thus Michael's presence and legacy will continue to contribute even after he technically moves into retirement.

Nathan Ensmenger