

COMPUTING

COLLEGE OF ENGINEERING AND SCIENCE



MAJORS

Computing (BS) with concentrations in:

- Computing Analytics
- Computer Science
- Computer Science with Bioinformatics
- Information Technology

MINOR

- Computing

CERTIFICATE

- Data Science

WHAT CAN I DO WITH A COMPUTING DEGREE?

The computer science concentration emphasizes modern approaches to software and hardware development. You'll master abstract concepts, learn practical applications of theory and gain exposure to the dynamic field of computing. This concentration prepares you for a myriad of careers in the computing field and also provides the foundation needed to pursue graduate study. Graduates go on to pursue careers as application developers, software engineers, database administrators, software designers, and software architects.

The computing analytics concentration emphasizes the analytical skills that are increasingly requested by organizations. You'll learn state-of-the-art technological advances to capture data streams, apply analytics on generated data and create data visualization for corporate strategical planning. Graduates are prepared for careers in the data science field such as data analysts, data scientists, business analysts, data architects and data engineers.

The information technology concentration gives you the opportunity to learn web programming, smart device applications development, experience Internet of Things (IoT) for the purpose of connecting and exchanging data with other devices and systems, as well as opportunities to learn networking, administration, and security skills. Graduates are prepared for careers in computing and related fields such as IT specialist and help desk technician, web developer, system analyst and system architects.

WHY CHOOSE COMPUTING AT SRU?

- 1. Up-to-date curriculum:** The computing curriculum is designed to easily add new areas in response to a rapidly changing computing industry. The core curriculum consists of nine courses and each concentration includes coursework to prepare students for a career.
- 2. Quality faculty:** Instructors are full-time faculty members with Ph.D.s who use their expertise and experience to enhance the learning experience. Faculty members are also academic advisers and guide students through their program of study.
- 3. Projects and research with faculty:** Computing students have numerous research projects to select from that result in presentations at regional, state, national and international conferences. Faculty work with any interested students on both existing and new projects. In addition, students are encouraged to compete in programming and cybersecurity security contests.
- 4. Equipment:** The Computer Science Department is home to a variety of specialized equipment for students' coursework and extracurricular projects in robotics, parallel programming, cybersecurity, 3D visualization and numerous Internet of Things devices. Students at all levels of the program have opportunities to work with devices such as the Lego Robot, iPad, Android Phone, Raspberry Pi, Arduino, NAO Robot, 3D printer and scanner, Alexa, Oculus rift goggles, drones, Furhat robot, and Pepper robot.
- 5. Industry experts and accreditation:** The department has an active advisory board that provides feedback on curriculum, hardware, software and assessment. The board assists the department with any internships and job opportunities. The computing degree is accredited by The Computing Accreditation Commission of ABET. Also, the department has a collaboration with Pittsburgh Supercomputing to use their equipment for research and classes.

SlipperyRock
University

A member of Pennsylvania's State System
of Higher Education

EXPERIENCE THE DIFFERENCE

www.sru.edu

INTERNSHIP OPPORTUNITIES

SRU computing students have completed internships at various locations including:

- Federal Bureau of Investigation (FBI)
- U.S. Army
- Armstrong Companies
- UPMC
- City of Pittsburgh
- Robomatter Inc.
- Alteryx
- FedEx
- PNC Bank
- Butler Healthcare
- Mylan
- Bayer
- McKesson Corporation
- Creehan Inc.
- Federated Inc.

CAREER OUTCOMES

Graduates have secured careers in the following areas:

- Software Engineer, Microsoft
- Systems Software Engineer, CMU Create Lab
- Software Developer, Oncology Nursing Association
- Network Programmer, Pittsburgh Supercomputing Center
- Information Security, Federator Investors
- Senior Software Engineer, Bossa Nova Robotics
- Applications Software Engineer, Komatsu Mining
- Software Architect, Truefit
- Deployment Engineer, Philips
- Technical Consultant, CGI
- IT Manager, Penn State University
- Linux System Engineer, CMU
- Quality Assurance Tester, SAE International
- Co-Site Manager, Mammoth Gamers
- IT Support Specialist, ChemADVISOR, Inc.

CLUBS AND ORGANIZATIONS

- Computing Technology Club
- Upsilon Pi Epsilon Honorary
- Women in Computing at The Rock



ALUMNI SPOTLIGHT

Thomas Haley, '23

Neya Systems LLC, Robotics Engineer

"The computing program at SRU offers a cutting edge, career-focused curriculum that will teach students real-world skills that will help them get a job in an increasingly competitive tech world. The program is very project focused and hands on which is important in a field where applied knowledge excels over pure theory. SRU also features top-quality instructors who are more than willing to help students with out-of-class career advancement; SRU instructors played an integral role in helping me get into both an internship and a final career after graduation. In addition to all this, SRU offers on-campus employment opportunities that will help you to build the skills you need to survive tough technical interviews and general career challenges. I particularly attribute many of the skills that landed me the job I have now to my time in the Slippery Rock Robotics laboratory. I had a significant edge during my interview due to the knowledge I gained there. Even in my daily workflow, I find myself relying on knowledge I gained in the robotics lab. Overall, I absolutely credit my career path to SRU and I highly recommend the program."

David Gillette, 21

Armstrong, System Administrator

"The computing program at SRU is excellent. As a transfer student I started at the Rock as a sophomore and the transition in was almost seamless. The faculty helped me get into the necessary classes and excel in those classes. The program focuses on doing projects in many classes which in my opinion is one of the best ways to learn. Often you would have a few weeks of instruction then towards the second half of the semester you would start working on a project while instruction continued. The program focuses on getting you a job, and the skills you learn in class reflect that. Some of my favorite classes included Data Structure and Algorithms, Artificial Intelligence and Parallel Computing and Architecture. These were some of the upper level classes that really focused on doing project on your own and hands on learning. One of the professors in the department also helped me get an excellently paying job where I am still employed. I can't thank the SRU Computing dept enough for everything they have done for me both inside and outside of the classroom."

ACADEMIC CONTACT: FOR MORE INFORMATION:

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