



A. JAMES CLARK
SCHOOL OF ENGINEERING

GRADUATE ENGINEERING DEGREES IN

SOFTWARE ENGINEERING

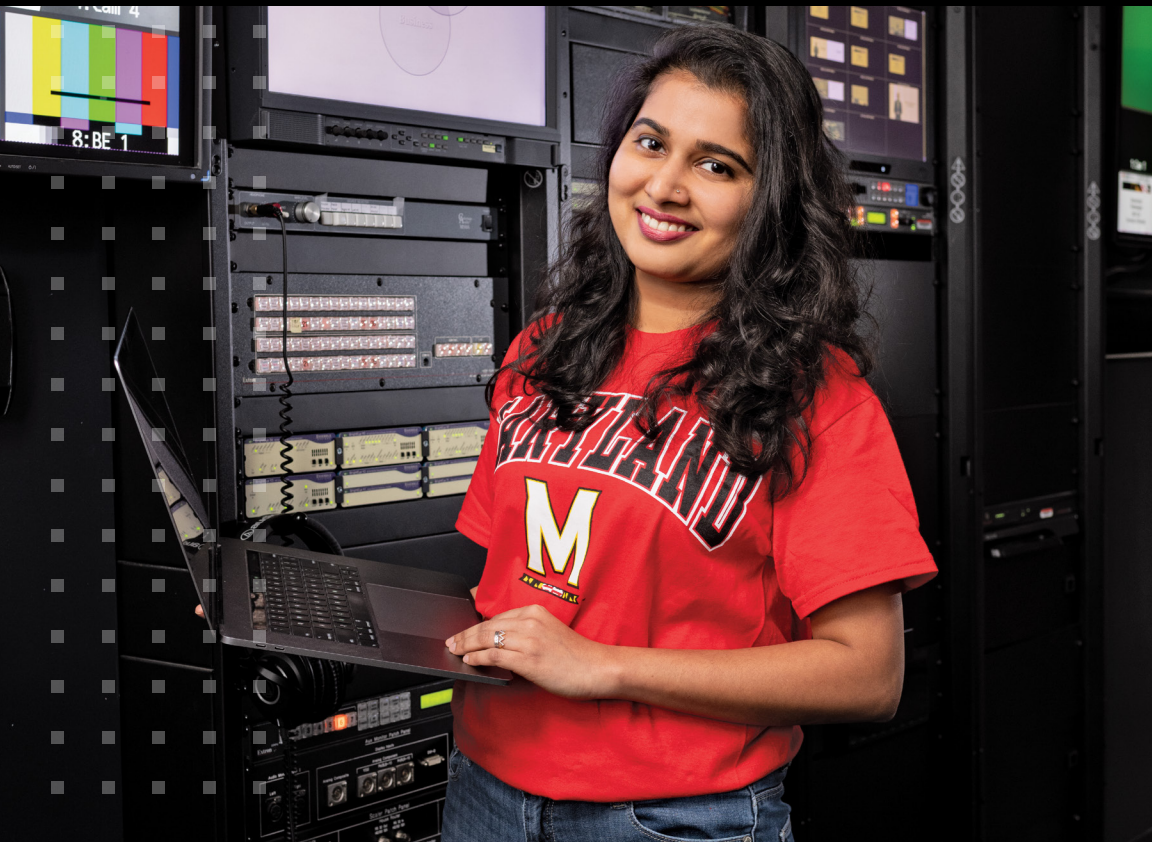
Apply innovative engineering principles to design, create, and maintain customized software systems.


DON'T WAIT TO FURTHER YOUR CAREER

Discover how Maryland Applied Graduate Engineering (MAGE) programs prepare you to solve the most daunting engineering challenges and give you a competitive edge in today's market.

- Focus on a specialized area of engineering and target coursework to your interests.
- Learn from industry leaders who incorporate the latest education tools to create collaborative, interactive learning environments.
- Balance work and family through the flexibility of online or in-person classes.
- Access student services online to quickly receive the support you need regarding admissions, financial aid, or career services.

A leader in graduate engineering education for professionals, we are proud to serve the region's engineering community. Through our programs, advance your career with a degree from the A. James Clark School of Engineering, consistently ranked among the top 20 in the U.S. Located just a few miles from Washington, D.C., Maryland Engineering is at the center of a constellation of high-tech companies and federal laboratories, offering students and faculty access to unique professional opportunities.





Software engineering moves society forward as a whole if done well by allowing more efficiencies and enabling people to excel. The MAGE program provides the opportunity to develop a deep understanding in sought-after skills and topics. At the same time, it teaches students the processes and techniques for delivering real-world software projects successfully.

CHRIS ACKERMANN
MAGE FACULTY

**TOP SOFTWARE
ENGINEERING POSITIONS**

- Computer Forensics Specialist
- Database Administrator
- Embedded Systems Developer
- Network Auditor
- Software Engineer
- System Analyst
- Web Developer

TOP STUDENT EMPLOYERS

- Infosys Limited
- Leidos
- Northrop Grumman
- Rapid Finance
- TATA Communications
- U.S. Navy

SOFTWARE ENGINEERING AT MARYLAND

As the use of software technology continues to expand, there is a growing need for professionals with software skills who are prepared to analyze client needs and solve their software challenges. With a 25 percent job growth rate in the field anticipated through 2031, software engineers are in demand and will play an important role in making future software systems safe, predictable, and able to evolve to meet next-generation systems requirements. Courses, representing the latest developments in the field, include AI-based software systems and an introduction to secure coding. Real-world applications often serve as instruction tools, such as examples derived from an analysis of various NASA systems used to teach software testing and maintenance. Students have the added advantage of taking related courses through the Department of Computer Science in the College of Computer, Mathematical, and Natural Sciences. Successful software engineers demonstrate solid analytical and problem-solving skills and know how to use the right programming languages, platforms, and architectures to develop products from computer games to network control systems.

GRADUATE PROGRAMS IN SOFTWARE ENGINEERING

Students earning a **Master of Engineering** or **Graduate Certificate in Engineering** degree learn to develop and maintain affordable, reliable, and efficient software systems that align with customer needs. The programs bring together faculty from the A. James Clark School of Engineering with experience applying the latest software engineering principles on large projects at NASA, DARPA, Raytheon, Lockheed Martin, and other major organizations. In the **Master of Engineering**, courses focus on three technical areas—cybersecurity, computer engineering, and systems engineering—preparing students to help solve pressing real-world problems. Through the **Graduate Certificate in Engineering**, students learn from research faculty and expert practitioners to develop and maintain software systems across industries.

**TAKE THE
NEXT STEP**

ADMISSION REQUIREMENTS

- A bachelor's degree in computer or electrical engineering, computer science, mathematics, applied mathematics, or a closely related field from an accredited institution
- GPA of 3.0 or better
- Completion of Calculus I and II and at least one college-level computer programming class, covering basic data structures, taught at an accredited institution and equivalent to CMSC 132 or ENEE 150
- Three letters of recommendation (M.Eng applicants only)
- Unofficial copies of transcripts
- For international students: an official English proficiency score report
- Official GRE scores considered but not required
- Completed applications considered for admission on a case-by-case basis

DEGREE REQUIREMENTS

MASTER OF ENGINEERING

- 10 courses (30 Credits)
- No thesis / no research
- No comprehensive exam

GRADUATE CERTIFICATE IN ENGINEERING

- 4 courses (12 credits)

FOR MORE INFORMATION

Visit mage.umd.edu/software or scan here for more specific



requirements, available courses, and degree planning sheets.

APPLICATION DEADLINES

ON-CAMPUS DOMESTIC

FALL July 31
SPRING December 15
SUMMER May 15

ON-CAMPUS INTERNATIONAL

FALL March 8
SPRING September 24

ONLINE DOMESTIC AND INTERNATIONAL

FALL July 31
SPRING December 15
SUMMER May 15

Are you ready to take the next step in your engineering career journey? Explore program options, application requirements, and deadlines through virtual and in-person open house sessions.

TO LEARN MORE, VISIT
mage.umd.edu/software



The A. James Clark School of Engineering is a catalyst for high-quality research, innovation, and learning, providing students the resources to be engaged problem-solvers and entrepreneurial thinkers. Pursue a degree tailored to your career interests through the top-ranking Maryland Applied Graduate Engineering programs.

D O N ' T W A I T T O F U R T H E R Y O U R C A R E E R



**MARYLAND APPLIED
GRADUATE ENGINEERING**

FOR MORE INFORMATION

We welcome your interest. For complete information, including course descriptions, deadlines, and schedules please contact us.

WEBSITE: **mage.umd.edu**

TEL: **855-309-8379**

EMAIL: **mage@umd.edu**