COLUMBIA | ENGINEERING
The Fu Foundation School of Engineering and Applied Science

COMPUTER ENGINEERING

The Computer Engineering program combines key aspects of electrical engineering and computer science. Students learn the fundamentals of circuits, systems, and software associated with the design of programmable systems as used for general purpose computing, communications, control, or signal processing. Because of their broad skills in both hardware and software, students in computer engineering are in high demand for employment after graduation. Computer engineering students are also positioned to pursue graduate programs in either computer science or electrical engineering.

Designing computer chips. Developing faster algorithms. Improving computer logic and circuit design. The Computer Engineering program is where the study of hardware and software interfaces come together. Join us to develop your interests at the juncture of electrical engineering and computer science, and learn how to design, create, and test software, hardware, and system designs for applications in business, industry, and government.

Core MS Computer Engineering Courses as of 2019*

CSEE	W4119	Computer networks	CSEE	E6180	Modeling and performance evaluation
CSEE	W4140	Networking laboratory	EECS	E6321	Advanced digital electronic circuits
EECS	E4321	Digital VLSI circuits	EECS	E6322	VLSI Hardware Architecture for Signal
EECS	E4750	Hybrid Computing for Signal & Data Processing	COMS	E6424	Hardware Security
EECS	E4764	Internet of Things – Intelligent & Connected Systems	EECS	E6765	Internet of Things - Systems & Physical Data Analytics
CSEE	W4823	Advanced logic design	CSEE	E6824	Parallel computer architecture
CSEE	W4824	Computer architecture	CSEE	E6861	Computer-aided design of digital systems
CSEE	W4840	Embedded systems	CSEE	E6863	Formal Verification of Hardware & Software Systems
CSEE	W4868	System-on-chip Platforms	CSEE	E6868	Embedded scalable platforms
EECS	E4951	Wireless Networks & Systems			

*a few additional courses that can be considered core may be announced each year depending on offerings

Research

Our program is making advances in solving the complex technological problems of today and tomorrow. We collaborate in diverse areas including computer architecture, hardware security, networks, and distributed embedded systems.

Faculty

Our faculty members are known for adding depth and perspective to scholarship and for their commitment to delivering a strong education and student experience.

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COMPUTER ENGINEERING FACULTY

Luca Carloni
Associate Professor of Computer Science

Martha A. Kim
Assistant Professor of Computer Science,
Computer Engineering Program Chair

Xiaofan (Fred) Jiang
Assistant Professor

Mingoo Seok
Associate Professor

Charles Zukowski
Professor

Daniel Rubenstein
Associate Professor of Computer Science