Artificial intelligence (AI) and machine learning (ML) are common threads across the College’s programs. Our researchers are increasingly using the technology to make new discoveries and improve the human condition. And new academic programs are teaching our students how AI and ML work.

We asked our school chairs to describe how AI and ML are at the core of every discipline and where they’re headed next.

JASON MADERER

ECE is positioned where AI meets the physical world and interacts with humans. Tressa Raychowdhury, the College’s eye in the sky, is pioneering educational approaches that provide direct engagement with leading AI technology. Initiatives such as the AI Makerspace will enhance students’ expertise, producing the next wave of AI leaders. By reimagining existing courses and introducing new ones, we’re complementing our theoretical AI curriculum with practical exploration. This approach empowers students to address real-world AI problems, develop sophisticated applications, and showcase their AI-driven ideas on a larger scale.

JASON MADERER

The Woodruff School has been a pioneer of new research directions in graduate education in manufacturing since the early 1980s. We continue that tradition, transforming our graduate program in manufacturing by incorporating AI and machine learning technologies in virtually all doctoral research projects. This allows us to rethink the future of the manufacturing industry.

GEORGE W. WOODRUFF

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING

Anirj Raychowdhury

SCHOOL OF MATERIALS SCIENCE AND ENGINEERING

Devesh Ranjan

SCHOOL OF CIVIL AND ENVIRONMENTAL ENGINEERING

Donal Webster

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