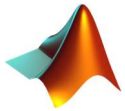

Mathematicians in Industry

Many math majors enjoy mathematics for its elegance, but wonder how their skills translate beyond the classroom. This talk offers an applied mathematician's perspective on how mathematical thinking is used every day in industry. Drawing on examples from engineering, data science, finance, and scientific computing, we will explore how core undergraduate skills—such as modeling, problem formulation, linear algebra, probability, and numerical computation—map directly to real-world challenges. Emphasis will be placed on *how* mathematicians think: breaking down complex problems, making assumptions explicit, working with imperfect data, and communicating results clearly. The goal is to help students see their mathematics degree not just as a set of courses, but as a powerful and flexible toolkit that makes them valuable and versatile employees across many industries.

Jon Loftin is a Customer Success Engineer at MathWorks and a Texas Tech Alumni. Jon's background is in mathematics. More specifically, implementing mathematics in a computer. He holds degrees in mathematics: a BS from Southern Arkansas University, a MS from the University of Arkansas, and a Ph.D. from Texas Tech University. He has had years of teaching experience, from teaching at the Naval Nuclear Power School to teaching as an Assistant Professor. Jon's research focus is building efficient integration techniques in finite element methods.