

Using AI in Engineering, Research, and Education

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As Generative AI (GenAI) techniques are rapidly transforming virtually every area of our lives, the responsible, critical, and effective use of these techniques becomes more important than ever. This talk will discuss observations and lessons learned from a number of studies my research group and I have conducted to examine experiences and strategies for effective human-AI collaboration in areas such as software development, legal analysis, and scientific research. We will also discuss pedagogical interventions we devised and our observations of students' experiences with GenAI within the scope of an upper-level undergraduate course on software engineering. Our analysis results lead to a number of suggestions for future researchers, educators, and industry practitioners seeking to deploy human-in-the-loop AI frameworks.