AI SUMMIT – March 25, 2026

Schedule of Events

Time	Activity	Duration
1:00 – 1:05 PM	Introduction and Welcome to Event	5 min
1:05 - 2:05 PM	Lightning Talks (6 speakers)	60 min
2:05 – 2:25 PM	Demo Demo #1	20 min
2:25 – 2:40 PM	Break (light snacks, coffee, etc.)	15 min
2:40 – 2:55 PM	Demo Demo #2	15 min
2:55 – 3:45 PM	Lightning Talks (5 speakers)	50 min
3:45 - 4:05 PM	Demo Demo #3	20 Min
4:05 – 4:10 PM	Closing/Survey/Networking	5 min

Schedule subject to change

Lightning Talks

Teaching DFT in One Hour: An AI Agent That Makes Ab-Initio Simulation Accessible to All

Speaker: YuZhong

Masgent is an AI agent that makes advanced materials simulation (DFT calculations) accessible to undergraduates without extensive training. Instead of spending weeks learning complex syntax and high-performance computing procedures, students use a natural-language interface where the AI generates input files, runs calculations, troubleshoots errors, and explains results. The presentation demonstrates a one-hour teaching module that enables students to complete their first materials simulation while focusing on concepts rather than technical details, broadening access to computational materials science across disciplines.

Teaching with AI-Powered Pedagogical Tools Created by Students for Students

Speaker: Rodica Neamtu

This teaching approach applies a **circular economy model** to AI education. Students progress through an iterative cycle: they first learn AI concepts in data-centric courses, then develop database tools through MQP projects, and subsequently explore AI's learning impact through directed research or thesis work. The tools students create are integrated back into the classroom, where they inspire new students to engage in the cycle. This model provides multiple levels of AI exposure and demonstrates how student-created tools can motivate lifelong learning while continuously enriching the educational experience.

Real-Time AI Verification: Teaching Critical Evaluation Through Quiz Questions

Speaker: Reza Ebadi

This practice builds AI literacy through weekly in-class analysis of AI-generated quiz answers. Instead of banning or freely allowing AI without guidance, faculty and students collaboratively evaluate AI responses in real-time, identifying correct answers, plausible errors, and dangerous misconceptions. Students learn discipline-specific verification strategies—checking equations, testing edge cases, spotting flawed reasoning. This repeated, guided analysis helps establish evidence-based boundaries for responsible AI use while teaching students concrete skills for evaluating when and how AI can be effectively and safely applied in their coursework.

The Velocity and Variability of ChatGPT(s)

Speaker: Keenan Kidwell

This talk highlights two critical factors when integrating or restricting LLMs in courses: **velocity** and **variability**. Velocity refers to the rapid improvement of ChatGPT's capabilities – what it cannot solve on Monday may be possible by Friday, making fixed policies quickly outdated. Variability describes the performance gap between free and paid versions, creating equity issues when students have unequal access to different model tiers. While these observations come from calculus courses, they have broad implications for how faculty across disciplines approach AI policies and ensure fair student access.

The Blackboxing of Learning and the Pedagogy of Whiteboxing: Making Student-AI Interaction Visible

Speaker: Yunus Telliel

Mainstream AI tools create a "blackbox" problem in education by hiding the learning process – only final outputs are visible while epistemic labor, false starts, and genuine insights disappear. This talk presents a **"whiteboxing" framework** that makes AI-assisted learning visible by requiring students to submit LLM interaction histories alongside their work (in engineering) and complete AI annotation exercises (in humanities). This documentation both scaffolds student metacognition and generates data on how students engage with AI during problem-solving. The approach builds on engineering's documentation culture while exploring how such pedagogical strategies can transfer across disciplines and what they reveal about the nature of learning when cognition is distributed between human and artificial agents.

The Case Against AI in Higher Education

Speaker: John Sanbonmatsu

This presentation will argue that the modest educational benefits of generative AI are far outweighed by its extensive harms. AI erodes cognitive abilities, weakens the relationship between teacher and student, reduces knowledge to a mere instrument, and undermines ethical integrity. Its widespread use threatens the foundations of writing and critical thinking, deepens social alienation, fragments shared understanding, and exploits human labor. Far from being a neutral tool, AI functions as a Trojan horse within the university – an extractive technology that accelerates ecological destruction while paving the way for expanded surveillance and social control.

AI as Tutor, Not Oracle: Project-Based Learning in AI-Supported Engineering Education

Speaker: Koksal Mus

This talk addresses teaching critical reasoning in technical fields where AI produces plausible but shallow answers. It presents a scalable **three-phase learning cycle** – priming, discussion and reflection, and synthesis – that repositions LLMs as tutors, design partners, and accountability tools rather than answer generators. Piloted in undergraduate cryptography (in-person) and adapted for graduate study (asynchronous), the model combines flipped learning with structured reflection in project-based work. Comparative analysis shows the asynchronous format matched in-person assessment outcomes while fostering greater creativity, deeper analysis, and more deliberate AI use. The presentation shares the instructional scaffolding, assignment structures, and assessment strategies that enabled these results, with recommendations for adapting the model to other technical disciplines.

New Horizons of the WPI Plan: Societal Transformations and Reimagining Project-Based Learning for AI

Speaker: John McNeil

WPI's project-based, humanistic technical education model must evolve as AI reshapes learning in science and engineering. Rather than merely reacting to AI, this talk argues for a strategic response aligned with four major societal trends: (1) diversification of learning styles across generations, (2) new multimodal course delivery capabilities, (3) reconfiguration of industry-academia relationships, and (4) public demand for AI trust, transparency, and governance. By examining these trends, the authors argue that WPI's integration of technical and humanistic education uniquely positions it to prepare students not just to use AI tools, but to create broader societal value—offering a framework for reimagining experiential learning in the AI era.

GenAI Validation in Team Project Assignments

Speaker: Beth Wilson

This approach integrates Gen AI into team project case studies by requiring students to **validate and categorize** AI-generated responses as: good (accurate and well-stated), incomplete (true but lacking detail), generic (possibly true but irrelevant or speculative), or false (incorrect). Students must justify their assessments with specific quotes from traditional references. Student response has been positive – many are surprised by AI inaccuracies, and they appreciate not having to prove they didn't use AI since the assignment explicitly permits cited AI use with validation statements. This framework teaches critical evaluation skills while normalizing transparent, responsible AI integration in coursework.

Talking to Rizmi: A Conversational Agent for Cognitive Scaffolding

Speaker: Ahmet Sabuncu

This presentation demonstrates how generative AI can be programmed as a **"Socratic" mentor** for ill-structured engineering problems. In the classroom activity, students receive only a problem prologue and must interact with an AI bot to learn additional details. As the bot gradually reveals information, it simultaneously prompts students to engage in divergent reasoning – a critical cognitive skill for solving complex problems. The presentation concludes by discussing current limitations of the AI bot and outlining future development work.

Teaching AI Through Agentic Trading: A Safe, High-Impact Simulation Assignment

Speaker: Xiaozhong Liu

This semester-long assignment teaches AI concepts – LLMs, retrieval-augmented generation (RAG), and agent systems – through a **paper-trading stock market simulation**. Students design autonomous AI agents that retrieve financial text, reason under uncertainty, and make trading decisions using virtual credits. The key innovation: **the goal is not profit maximization** but exposing students to AI's limits, risks, and failure modes – including biased retrieval, over-reliance on weak signals, and emergent agent behavior. This design enhances engagement, facilitates ethical AI discussions, and generates rich assessment artifacts. The talk covers practical scaffolding, grading strategies, and how the assignment naturally connects AI capability with AI responsibility.

Demo Demos

Real-Time AI Verification: Teaching Critical Evaluation with Domain Expertise

Speaker: Reza Ebadi

Critically evaluating AI with domain expertise is becoming an essential skill that we can teach students. In this session, a live, classroom ready approach to foster critical evaluation of AI will be demonstrated. Through a real-time interaction with an AI model, the instructor guides students to identify what is accurate, what is misleading, and what is entirely missing. The goal is to build AI verification as a transferrable skill that students can carry beyond their courses.

Where's the Line? Clarifying AI Boundaries with Students

Speaker: Laura Roberts

How can we help students understand what appropriate and responsible use of generative AI looks like in our courses? This "demo demo" models a quick, interactive activity that invites students to evaluate a range of AI-use scenarios in relation to the course learning outcomes. Using sticky notes, students consider the line between collaborating with AI and over-delegating their academic work. The exercise creates a visual representation of the gray areas surrounding AI use and engages students in a dialogue that fosters student buy-in while clarifying expectations for responsible and effective AI use at the course level. In this session, participants will experience the activity as students and consider how to adapt it for their own classrooms.