Teaching Statement

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> In the beginner's mind there are many possibilities. In the expert's mind there are few.
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> — Shunryu Suzuki

What is learning? How can we assess what has been learned? Are there degrees of learning, and what is the best or different ways to impart knowledge to different students/people?

I believe the best teaching and mentoring is all about meeting the individual where they are. This requires empathy, connection, a sincere effort to connect with the person and their background. One needs to understand their context to provide the best learning experience. And this experience is often unique to the individual, which is not a surprise since everyone is unique in their own ways.

1 Teaching Experience

I view teaching as a lifelong commitment and a core part of how I engage with my field. Growing up in a family of educators, I have long been motivated by the idea that helping others understand complex ideas can be both illuminating and impactful. I have pursued this through a range of roles, as a teaching assistant, mentor, and tutor across more than ten courses in computer science, mathematics, statistics, and data science, working with students of diverse backgrounds and levels of preparation.

My goal as an educator is to foster deep conceptual understanding alongside critical reasoning and the ability to apply ideas in new settings. This philosophy is closely tied to my research on evaluating reasoning and reliability in AI systems. At the University of Pennsylvania, I led the design and deployment of a novel oral assessment framework in a graduate-level Machine Learning course (approximately 200 students), representing the university's first large-scale implementation of this format [Jin+26]. This approach emphasizes students' ability to articulate and adapt their reasoning, and I developed an LLM-based system to scale structured rubric generation for consistent evaluation.

Across other roles, I have supported students at different scales, from managing multiple sections in large courses (approximately 500 students) to mentoring beginners through their first data science projects. These experiences have reinforced my commitment to meeting students where they are while maintaining high expectations, helping them build both confidence and technical skill.

2 Teaching Philosophy

My teaching philosophy centers on three principles: meeting students where they are, fostering independence, and connecting learning to broader impact—grounded throughout by a strong emphasis on empathy.

I view teaching as the facilitation of learning rather than the delivery of content. While I approach each course with clear objectives and intentional structure, I remain attentive to students' evolving needs,

adapting pacing and methods to address gaps in understanding. Meeting students where they are requires not only pedagogical flexibility, but also an awareness of the diverse experiences and challenges they bring into the classroom. **Empathy** is central to my approach. Teaching is not only about conveying technical material, but about supporting students as individuals. I strive to create an environment that is both rigorous and supportive—where students feel respected, encouraged to ask questions, and comfortable engaging deeply with the material. I emphasize persistence and growth, helping students build confidence over time and recognize that mastery often develops gradually. At the same time, I aim to cultivate independence and ownership over learning. Students should not passively absorb material, but actively shape their intellectual development. I incorporate structures that encourage this agency, guiding students to reflect on their goals and take responsibility for their progress. Finally, I emphasize the connection between classroom learning and real-world impact. I incorporate interdisciplinary perspectives, case studies, and engagement with practitioners to help students situate their knowledge within broader societal contexts and reflect on the implications of their work.

Overall, my goal is to develop students who are not only technically strong, but also thoughtful, adaptable, and capable of reasoning about the broader impact of their work.

Diversity/Accessibility Statement Service and mentorship are central to my role as an educator. I actively support students exploring research and career paths through mentorship and one-on-one guidance. I have also worked to expand access to computing education, including leading the One-to-One Tutoring organization as a Head Coordinator under Columbia's Community Impact (tutoring elementary school students in Harlem) and leading the Girls Who Code chapter at Columbia as President (providing girls who normally would not have been exposed to computer science free education). These experiences have reinforced my commitment to building inclusive learning environments that foster confidence, belonging, and long-term engagement.

3 Teaching Goals

A central goal of my teaching is to rethink computer science curricula in the age of AI. As expectations for what students need to know evolve, I aim to balance strong theoretical foundations with practical fluency, incorporating hands-on experience with modern AI tools and exposure to real-world applications. I also value integrating industry perspectives, through guest speakers, case studies, and project-based learning, to better connect classroom learning with practice.

I am equally committed to fostering an inclusive and intellectually diverse classroom. I design courses to create multiple entry points into the material, supporting students from varied backgrounds while maintaining rigor. By building a shared foundation and encouraging diverse perspectives, I aim to cultivate an environment where students learn from one another and engage more deeply with the material.

Along these lines, I developed AI in the Human Context, a course that examines AI as a sociotechnical system across historical, technical, and societal dimensions. The course equips students to critically engage with AI, understanding its evolution, evaluating its limitations, and reasoning about its broader impacts, while encouraging reflection on how they can contribute to its responsible development.

More broadly, I view the classroom as my laboratory, in other words, a space for pedagogical innovation. My first research project in the computer science education domain explored how automatically generated summaries of video lectures can enhance students' learning experiences [Gon+23]. Since then, I have explored alternative assessment methods in response to generative AI, including leading the design of an oral assessment framework in a graduate Machine Learning course at the University of Pennsylvania [Jin+26]. This work informs my ongoing interest in developing scalable, rigorous evaluation methods and contributing to computer science education research.

Ultimately, my goal is to prepare students not only to build AI systems, but to critically evaluate and responsibly deploy them, emphasizing that technical excellence must be paired with ethical awareness and a commitment to augmenting, rather than diminishing, the human experience.

References

[Gon+23] Hannah Gonzalez et al. "Automatically Generated Summaries of Video Lectures May Enhance Students' Learning Experience". In: *Proceedings of the 18th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 2023)*. Ed. by Ekaterina Kochmar et al. Toronto, Canada: Association for Computational Linguistics, July 2023, pp. 382–393. DOI: 10.18653/v1/2023.bea-1.31. URL: https://aclanthology.org/2023.bea-1.31/.

[Jin+26] Helen Jin et al. "Oral Assessments: Design and Evaluation of Assessments for Graduate Level Computer Science Assignments". In: Under review. 2026.