

Is Pleased to Announce Faculty Candidate Seminar



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Artistic Vision: Interactive Computational Guidance for Developing Expertise

Abstract: *Computer scientists have long worked towards the vision of human-AI collaboration for augmenting human capabilities and intellect. My work contributes to this vision by asking: How can computational tools not only help a user complete a task, but also help them develop their own domain expertise while doing so?*

I investigate this question by designing new interactive tools for domains of artistic creativity. My work is inspired by the fact that expert artists have trained their eyes to “see” in ways that embed their expert domain knowledge—in this case, core artistic concepts. As instructors, experts have also designed approaches to intentionally communicate their vision to their students. My work designs creativity tools that leverage these expert structures to help novices develop this expert-like “artistic vision”—specifically through providing guidance to scaffold their design processes. In this talk, I will demonstrate my approach for designing tools that embed such guidance for photography and visual design that embed the underlying design principles. I will show that these tools are able to scaffold novices’ to be more aware of these artistic concepts during their creative process.

Bio: *Jane E is Postdoctoral Fellow at The Design Lab at UCSD under the guidance of mentors Steven Dow and Haijun Xia. She earned her PhD in Computer Science from Stanford University, where she was co-advised by James Landay and Pat Hanrahan. Her research lies at the intersection of human-computer interaction and computer graphics with a focus on designing computational guidance to support novices in developing their own creative expertise. Her work takes inspiration from cognitive science and education theory to design computational tools that scaffold novices’ creative processes. Jane is grateful to have been selected as a Rising Star in EECS and to have been supported by a Microsoft Research Dissertation Grant, Hasso Plattner Institute’s Design Thinking Research Program, Brown Institute for Media Innovation, and UCSD CSE’s Postdoctoral Fellowship Program. She previously worked on the Microsoft Photos app as a software engineer after receiving her BSE from Princeton University. For more information, see her website: ejane.me*