J. Lesner

jlesner@ucsb.edu

Computer Science graduate student exploring AI/ML/LLMs to enhance education and productivity.

EDUCATION

University of California, Santa Barbara (2024/09 – Present)

- Computer Science, MSc with GPA of 3.8/4.0

University of California, Santa Cruz (2021/09 – 2024/06)

- Computer Science, Cum Laude BSc with GPA of 3.9/4.0

PROJECTS (More: https://jlesner.github.io/projects/)

"SnipDue: Never Miss Another Deadline" | SB Hacks XI Hackathon (2025/01)

- Awarded "Best Use of GenAI Award" (among 221 hackathon participants) for a deadline import tool with near universal support for all the ways to represent a schedule. It uses Claude 3.5 Sonnet and works with Google Calendar, Apple Calendar, Outlook, and any iCal-compatible app.

"Understanding Explainable AI Requirements" Study | UCSB (2024/09 – 2024/12)

- Designed UI for a service to enhance human intelligence through perfect recall, fact-checking and relationship insights. Conducted user studies with four subject groups to evaluate effectiveness of AI explanations.

"AI Personalized *Interactive* Fiction (AIPIF)" | UCSC (2023/08 – 2024/05)

- Led R&D of child-focused AI storytelling prototype integrating LLMs with text-to-image/sound/music generation, enabling emoji-based topic selection and interactive narratives with parental controls. Traveled to Spain to present AIPIF at ECAI-2024 and PAIS-2024 conferences.

"State Machine Visualizer (SMV)" | UCSC (2022/09 – 2023/09)

- Developed a tool to create State Machine diagrams directly from source code. Conducted user testing leading to ICRA-2025 conference submission.

PAPERS

- Lesner, J., Murayama, L., Guizar, T., Phunjamaneechot, P., & Shapiro, D. (2024). AI Personalized Interactive Fiction for Young Children. In Frontiers in Artificial Intelligence and Applications: Vol. 392. ECAI 2024 (pp. 4756-4763). IOS Press. https://doi.org/10.3233/FAIA241074
- Lesner, J., Murayama, L., Guizar, T., Phunjamaneechot, P., & Shapiro, D. (2024). A Demonstration of AI Personalized Interactive Fiction for Young Children. In Frontiers in Artificial Intelligence and Applications: Vol. 392. ECAI 2024 (pp. 4487-4490). IOS Press. https://doi.org/10.3233/FAIA241036
- Lesner, J., Elkaim, L., (2025). Automating Visualization of Event-Driven Control Systems. Pending ICRA-2025 peer review.

SKILLS

Technical Skills: Full-Stack Software Development (Python + AI/ML including LLMs/VLMs, …), Cloud Infrastructure (AWS EC2/S3, Cloudflare), Static Code Analysis, Abstract Syntax Tree Analysis. UNIX/Linux. **Programming Languages**: Python, Haskell, Java, C/C++, SQL, JavaScript, BASH. **Tools & Technologies**: Git/GitHub, Anthropic/OpenAI APIs, Graphviz, LaTeX, PyTorch, TensorFlow. **Research Skills**: User Studies, Prototype Development, Statistical Analysis, Academic Publishing, Conference Presentations. **Project Experience**: Educational Technology, AI Content Generation, Interactive Fiction, Explainable AI (XAI), Automated Visualization. **Soft Skills**: Research Leadership, Academic Writing, Project Management, Educational Design.