

Jasmine Lesner

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INTERESTS

Building machine-learning systems whose outputs are reliable enough to deploy in high-stakes, human-facing settings.

EDUCATION

University of California, Santa Barbara **Santa Barbara, CA**
Accepted for Ph.D. in Computer Science 2026 – ...

- **Awarded:** Eugene Cota-Robles Fellowship

University of California, Santa Barbara **Santa Barbara, CA**
M.S. in Computer Science, GPA 3.9/4.0 2024 – 2025

- **Masters Project:** “Algorithmic Prompt Optimization for SQL Synthesis and Counterexample Discovery” **Advisor:** Dr. Xifeng Yan

University of California, Santa Cruz **Santa Cruz, CA**
B.S. Computer Science with Highest Honors, GPA 3.9/4.0 2021 – 2024

- Dean’s Honors List and graduated with University Honor, Cum Laude

PUBLICATIONS

- **Lesner, J.**, Murayama, L., Guizar, T., Phunjamaneechot, P., & Shapiro, D. (2024). AI Personalized Interactive Fiction for Young Children. *Frontiers in Artificial Intelligence and Applications: Vol. 392. ECAI 2024* (pp. 4756-4763). IOS Press.
- **Lesner, J.**, Murayama, L., Guizar, T., Phunjamaneechot, P., & Shapiro, D. (2024). A Demonstration of AI Personalized Interactive Fiction for Young Children. *Frontiers in Artificial Intelligence and Applications: Vol. 392. ECAI 2024* (pp. 4487-4490). IOS Press.

PREPRINTS

- **Lesner, J.**, & Beyeler, M. (2026). SymbolSight: Minimizing Inter-Symbol Interference for Reading with Prosthetic Vision *Preparing for EMBC-2026*.

VIDEOS

- **Lesner, J.** (2025). SymbolSight: Visual Symbol Sets That Remain Clear Despite Distortions from Retina Implants. *Youtube*.
- Lesner S., **Lesner J.** (2025) SnipDue Demo. *Youtube*.
- **Lesner, J.**, Murayama, L., Guizar, T., Phunjamaneechot, P., & Shapiro, D. (2024). A Demonstration of AI Personalized Interactive Fiction for Young Children. *Youtube*.
- **Lesner, J.**, & Elkaim, G. (2024) State Machine Visualizer (SMV2) v0024 *Youtube*.

PROTOTYPES

- SnipDue: AI Schedule Sync** **SBHacks XI**
 Winner of “Best Use of Gen AI” Hackathon Award 2025
- Built a schedule-synchronization app using Claude Sonnet and Cloudflare Workers to transform unstructured course information into calendar events.
- GUARD: Guided Understanding & Agreement Rights Detector** **UCSB**
 Smartphone App User Interface in Figma Fall 2024
- Designed a prototype UI to detect and highlight troublesome or conflicting statements inside spoken and written communications.
- AI Personalized Interactive and Teaching Fiction** **UCSC**
 Two generative AI powered Web Apps 2024
- Built two web apps that use generative AI to entertain and teach young children using stories that have pictures, music, sounds, decisions and quizzes.

REPORTS

- **Lesner, J., Zhao, F., & Yan, X.** (2025). DBDoctor: LLM-Aided SMT Refutation of SQL Query Equivalence. *Technical Report*.
- **Lesner, J. & Anand S.** (2025). NutriGNN: Food Nutrient Prediction with an LLM Enriched Knowledge Graph. *Technical Report*.
- **Dhaliwal, M. & Lesner, J.,** (2025). MIRROR: Measuring, Improving, and Reproducing Ranking with Open Retrieval Models. *Technical Report*.
- **Krachenfels, K. & Lesner, J.** (2024). Understanding XAI Requirements: A Comparative Study of Repetitive and Unique Decision Contexts. *Technical Report*.
- **Lesner, J., & Elkaim, G.** (2024). An Automated Tool for State Machine Diagram Generation in Mechatronics Education. *Technical Report*.

PRESENTATIONS

- Retrospective on AIPIF / Project Team Mentoring** **UCSC**
 Annually invited speaker at CMPM146: Game AI Course 2024 – 2025
- SnipDue: AI-Powered Academic Deadline Management** **UCSB**
 AI CoP Spring Symposium 2025 2025

EXPERIENCE

- CAHSI/NSF-Sponsored Research Assistant** **UCSC**
 Supervisor: Dr. Gabriel Elkaim 2022 – 2023
- Engineered a static-analysis pipeline using XPATH/XSLT to automatically reconstruct state diagrams from diverse C-based embedded control code in mechatronics projects and authored a technical report detailing the static-analysis and visualization approach.

SKILLS

AI/ML: DSPy, scikit-learn, PyTorch, TensorFlow, Jupyter notebooks
Languages: Python, Java, C, SQL, JavaScript/HTML, XSLT/XPath, LaTeX
Infrastructure: VSCode, Linux, Git, Docker, Databricks, Cloudflare