Jadyn Berlin

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Education

University of California, Los Angeles — Los Angeles, CA
Bachelor of Science in Computer Science — *Expected Dec 2027*

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Architecture, Programming Languages

Experience

Peer Advisor — Mar. 2026 – Present
Undergraduate Research & Internship Programs, UCLA Samueli School of Engineering — *Los Angeles, CA*

- Maintain **3 UCLA websites** using **WordPress**, modifying page layouts, integrating forms and media, and troubleshooting broken pages and links to support programs that received **1,909 appointment requests in AY 2025–26**.
- Advised and mentored **30 engineering students** on research opportunities, resume revisions, recruiting timelines, and application strategies through **individualized 1:1 guidance**.

Undergraduate Research Intern — May 2026 – Jul. 2026
DIMACS NSF REU, Rutgers University — *New Brunswick, NJ*

- Engineered an async **Python** pipeline integrating **OpenAI, Gemini, and DeepSeek APIs** to generate **3,000 poems across 10 languages** and automate **9,000 red-team trials**, measuring LLM safety across languages.
- Designed fault-tolerant experiment infrastructure to execute thousands of API requests concurrently, using **checkpointing, automatic retries, and resumable processing** to recover from API errors and interruptions.
- Built a multi-model evaluation system using **3 independent LLM judges and 2-of-3 majority voting**, iteratively testing and refining judge prompts before classifying **8,227 responses for jailbreak success**.
- Developed a **pandas-based analysis pipeline** to consolidate **9 experiments** and quantify how jailbreak and poem-generation failure rates varied by language, target model, and poem generator.
- Identified a **9× range in jailbreak probability (4.51%–41.02%)** across poem-generator/target-model combinations and authored a **30-page technical research report** documenting methodology, findings, and future work.

Undergraduate Research Intern — Jun. 2024 – Aug. 2024
Bioinformatics Lab, California State University, Fresno — *Fresno, CA*

- Evaluated **6 generative AI models** for synthetic DNA generation, constructing and validating a dataset of **300 sequences totaling 300,000 base pairs** and identifying sequence-length and formatting errors.
- Used **NCBI BLAST** to measure biological similarity, finding **86% of sequences had no database matches**, and **AlphaFold** to investigate predicted protein structures; presented findings at Fresno State's Summer Symposium.

Computer Science, Math & Physics Tutor — Jan. 2024 – Jul. 2025
Madera Community College Learning Center — *Madera, CA*

- Led weekly **Computer Science Extend the Classroom sessions**, developing lesson plans and guiding students through **C++** programming labs, problem-solving exercises, and technical concepts.

Projects

Computational Media Framing Analysis | *Python, NLP, BeautifulSoup* — May 2026 – Jun. 2026

- Built a **Python web-scraping and NLP pipeline** to collect, clean, and analyze **300 articles from 5 news outlets** covering a single geopolitical conflict, implementing outlet-specific parsers with **BeautifulSoup and Requests**.
- Developed a **text-processing pipeline with pandas and NLTK** to transform **320K+ raw tokens** through tokenization, stop-word filtering, and lemmatization into **151K+ analysis-ready tokens**.
- Applied **LDA topic modeling with Gensim** and **VADER sentiment analysis with NLTK** to quantify differences in topic emphasis and emotional framing across news sources, visualizing results with **Matplotlib**.

UCLA Party Poopers | *Next.js, React, TypeScript, Tailwind CSS, Figma* — Jan. 2026 – Mar. 2026

- Designed the application's **end-to-end UI/UX in Figma** and translated designs into reusable **React/TypeScript components** for the dashboard, bathroom discovery, and review experiences within the team's full-stack application.
- Developed **state-driven Next.js interfaces** for restroom creation, ratings, and review submission, implementing client-side validation, conditional UI states, and live input feedback in a collaborative **Git/GitHub codebase**.

Technical Skills

Languages: Python, C++, TypeScript, JavaScript, SQL, HTML/CSS
Frameworks & Libraries: React, Next.js, Tailwind CSS, pandas, NumPy, Matplotlib, BeautifulSoup, NLTK, Gensim
Tools & Technologies: Linux, Bash, Git/GitHub, WordPress, Figma, REST APIs, Microsoft Excel, PowerPoint, Word