

# Jaden Seangmany

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## EDUCATION

### University of California, San Diego

La Jolla, CA

*M.S. Computer Engineering, B.S. Cognitive Science: Machine Learning (double major)*

*September 2023 – December 2027*

- Provost Honors, Padovani Scholar (~1%), Vice President @ ECE USC (Engineering Student Council)
- Next-Gen Innovator Mentee @ Apple, Security Engineering Mentee @ Mastercard, Campus Ambassador @ AWS
- Coursework: Software Engineering, Machine Learning, Parallel Computing, Computer Architecture, Computer Vision

## EXPERIENCE

### Capital One

Richmond, VA

*Software Engineering Intern*

*June 2026 – August 2026*

- Designed a service agreement **monitoring system** to detect risks, **processing 1B+** documents, **saving \$3.9M annually**.
- Developed a query generation engine in **Apache Spark**, adding **modularity** and user friendly onboarding to new configs.
- Built a **CI/CD** pipeline for **Databricks** using **Jenkins** and **AWS IAM/Secrets Manager**, streamlining job deployment.
- **Scaled** cluster infrastructure to handle **mass data volume**, optimized via **Thread Pool Executor** for a **60X** speedup.

### CDC: Centers for Disease Control and Prevention

San Diego, CA

*Undergraduate Researcher: Advised by the Turakhia Lab, sponsored by the CDC*

*September 2024 – January 2026*

- Built *metaWEPP*, a **Snakemake/Python** metagenomics data workflow for discovering and analyzing novel viruses.
- **Co-authored a paper accepted to ISMB 2026**, and **NAR Genomics**, top bioinformatics conferences and journals.
- Tuned hyperparameters to add support for over **16 million reads** and achieved **99% classification accuracy**.
- Automated **CI/CD** with **GitHub Actions**, built **Docker** images, and **parallelized** workflows, achieving a **2X** speedup.

### Cubic Corporation

San Diego, CA

*Software Engineering Intern*

*June 2025 – December 2025*

- **Led full-stack development** of a **C# GUI** interfacing with FPGA registers for **real-time waveform masking**.
- Built **Python** automation pipelines to convert register maps into XML, saving **months** of cumulative debugging time.
- Collaborated with hardware engineers using **VHDL**, **Vivado**, and **ModelSim** to validate **RF systems**.

### Computer Science & Engineering Dept. @ UCSD

San Diego, CA

*Undergraduate Teaching Assistant*

*September 2025 – December 2025*

- Supported weekly labs for **250+ students** on **TypeScript** and **HTML/CSS**, improving average project scores by **15%**.
- Developed Python scripts to **streamline grading and feedback**, earning the **highest course evaluations on record**.
- **Collaborated** with instructional staff to iterate on lab design and align learning objectives across multiple sections.

## SELECTED LEADERSHIP

### ACM AI: Association for Computing Machinery

San Diego, CA

*President*

*May 2025 – Present*

- Led a **team of 25+** board members to host **30+** events for over **10,000** students every year.
- Designed several initiatives (networking, workshops, socials) with an expected growth of AI community engagement by **3X**.
- Managed the AI competitions platform, hosting **200+ national competitors** and awarding over **\$5,000** in prizes.

## SELECTED PROJECT

**AgentUX – Agentic UX Testing Platform** | *FastAPI, Browser Use, Anthropic API, Playwright*

April 2026

- **Winner at DiamondHacks 2026** (largest hackathon in San Diego) among **400+ competitors**.
- Platform that automates usability testing with **user customizable agentic personas** tailored to target audiences.
- **Orchestrated 10+** parallel personas via **Browser Use** cloud agents, detecting 85%+ of known usability issues.
- Built a **FastAPI + WebSocket** pipeline, parsing agent trajectories into real-time confusion/hesitation scores.
- Validated **Gemini-generated CSS/JS fixes** via **Playwright** screenshots, **injected live via Chrome content scripts**.

## TECHNICAL SKILLS

**Languages:** Golang, Java, Python, C#/.NET, SQL, JavaScript/TypeScript, C/C++, OpenCL, CUDA, Swift

**Web-based:** Flask/FastAPI, Node.js/Express.js, Next/React, JUnit/Jest, Expo/React-Native, MongoDB, DynamoDB

**Developer Tools:** Git, CI/CD (GitHub Actions), Docker, Kubernetes, Linux/Unix, AWS, Antigravity, Databricks

**Machine Learning:** XGBoost, PyTorch, TensorFlow, Pandas, HuggingFace, GenAI, LLMs, NLTK