

Rosalinda (Rosie) Chen

Software Engineer/ Machine Learning Engineer | rosiechen1005.github.io
Berkeley, CA | (626) 633-2588 | rosiechen1005@berkeley.edu | U.S. Permanent Resident | Available Immediately
Linkedin: linkedin.com/in/rosiechen1005 | GitHub: github.com/rosiechen1005

EDUCATION

University of California, Berkeley (UCB) GPA 4.0/4.0 M.S. in Analytics (Expected June 2027)	Berkeley, CA Aug 2026 - June 2027
University of California, Los Angeles (UCLA) GPA 3.6/4.0 B.S. in Statistics & Data Science B.S. in Applied Math (Computing)	Los Angeles, CA Sept 2022 - Jan 2026

SKILLS, AWARDS, LEADERSHIP

- **Languages:** Python, C++, TypeScript, SQL
- **Backend & Cloud:** REST APIs, AWS, SQS, DynamoDB, Docker, Kubernetes, Firebase, Git, Linux
- **AI & Data:** LLMs, RAG, vector search, PyTorch, scikit-learn, reinforcement learning, Pinecone, Snowflake
- **Awards & Leadership:** 1st Place in Kaggle Competition, Dean's Honor List, Lead, Bruin Sports Analytics

EXPERIENCE

PageTok Sunnyvale, CA
June 2026 - Aug 2026
Software Engineer Intern | pagetok.web.app

- Built an **AI-powered workflow orchestration platform** where admin can define reusable workflow definitions and LLMs classify incoming requests, extract required parameters and dynamically route requests to the matching workflow, automating ~70% of routine multi step tasks and reducing manual effort by ~50%.
- Designed an **asynchronous execution pipeline using AWS SQS**, decoupling request handling from long-running workflows and coordinating distributed workers with idempotent execution, retry handling.
- Optimized workflow execution through caching and parallel processing, reducing median latency by **31% (5.5s → 3.8s)** and **Firebase** reads by **42%**, while supporting **1,000+ concurrent workflow executions**.
- **Containerized API** and worker services with **Docker** and deployed them on **Kubernetes**, enabling horizontal scaling and fault-tolerant processing; added structured logging and a **75-task regression suite** to detect workflow failures and performance regressions.

Boom Industrial Los Angeles, CA
Jan 2026 – June 2026
Data Scientist Intern

- Designed automated Python/SQL ETL pipelines ingesting and transforming 520k+ ERP records into Snowflake, replacing manual reporting workflows and reducing processing time by 60% (10 → **3.5 hrs/week**).
- Built reusable feature-engineering and model-evaluation pipelines on warehouse data for sales forecasting, improving RMSE by ~28% using regression and XGBoost.
- Developed **Tableau dashboards** used by 15+ **stakeholders** to track revenue, conversion, and inventory **KPIs**.
- Supported **A/B testing** on pricing and promotions, contributing to a ~9% **revenue lift** in pilot regions.

Artificial Intelligence & Visual Computing Lab Los Angeles, CA
Aug 2025 - Jan 2026
Research Assistant (MLE) | github.com/rosiechen1005/computational-string-art

- Reengineered a string-art pipeline in **GPU-accelerated Python/PyTorch**; **83× speedup (2.8 hr → 2 min)**.
- Developed optimization algorithms for joint multicolor thread assignment and 3D reconstruction through differentiable pin and frame placement, validating output quality using **RMSE**; SIGGRAPH Asia-submitted 2026
- Evaluated robotic agents across **4,000+ parallel simulations**, improving task success by ~40%; implemented a Franka drawer-opening demo for **CVPR**-submitted system **SPARK**.

PROJECTS

BruinPlanner (DataRes @ UCLA) | github.com/rosiechen1005/RAG-BruinPlanner Sept 2024 - Mar 2025

- Built a **RAG** course recommender with transformer embeddings and **Pinecone**, improving relevance by ~50%.
- Developed course-data pipelines for vector search, degree filtering, and **LLM** recommendations.
- Exposed recommendation workflow through **REST APIs** and added **cache** for frequent courses and queries.

Agar.io Reinforcement Learning (DataRes @ UCLA) | github.com/rosiechen1005/agaRL.io Mar 2025 - June 2025

- Built a custom Agar.io **RL** environment in C++ with Python/OpenAI Gym bindings and multi-agent support.
- Trained **PPO** actor-critic agents in **PyTorch** using spatial-grid states and configurable action spaces.

Self intro

Hi, Im Rosie, I'm currently pursuing my master's at UC Berkeley major in Analytics and I recently graduated from UCLA.

I mainly focused on backend engineering, distributed systems and cloud computing, especially for AI-powered applications.

Most recently at PageTok, I worked on building an AI workflow platform that uses LLMs to route user requests to predefined workflows and execute them asynchronously. This platform automated around 70% of repetitive multi step tasks, reducing manual efforts, while I also improved median execution latency by 31% through caching and parallel processing.

Im currently looking for software engineer roles where I can work on scalable backend and infra systems.

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Earth System Science Interdisciplinary Center

College Park, Maryland

Machine Learning Engineer | github.com/rosiechen1005/AgriCast-ML

June 2025 - Aug 2025

- Built HPC-based ML pipelines integrating **50+ years of USDA, NOAA data** for county-level crop forecasting.
- Improved test **R² from 0.39 to 0.77** using seasonal features, regional clustering, PCA, and random forests.