

RIT AGARWAL

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EDUCATION

University of California, Los Angeles (UCLA)

Bachelor of Science - Computer Science, Minor in Mathematics

Awards – Gerald and Thelma Merit Scholarship Awardee 2024/2025

June 2025

PROFESSIONAL EXPERIENCE

Supercog.ai | Software Engineering Intern

February 2025 – Present

- Boosted developer productivity by building AI tools that automate engineering meeting agendas and task tracking through GitHub APIs.
- Improved product usability and onboarding speed by integrating example prompts into the **Agentic**, **Next.js**, and **Python** stack.
- Simplified debugging of complex agent workflows by designing a run log system that links subagent activity to parent processes.
- Enhanced dashboard responsiveness by implementing paginated data views and optimizing API calls, improving user experience.
- Increased system transparency by refactoring **PostgreSQL** logic to accurately track agent run times, supporting better insights.

Tatari | Software Engineering Intern

June 2024 – September 2024

- Engineered a log ingestion pipeline that processed 20GB/day of **Databricks** data using **Kubernetes**, **AWS**, **Terraform**, and **Grafana**.
- Reduced missed job runs by 30% using an automated **Airflow** monitoring system that ensured timely execution of critical data pipelines.
- Strengthened deployment reliability by creating a custom **YAML** linter that proactively prevented misconfigurations across teams.
- Saved over \$20,000 annually by optimizing **AWS S3** storage with **Terraform** teardowns and lifecycles, freeing 60TB of unused data.

Pullscription LLC | Software Engineering Intern

June 2023 – September 2023

- Accelerated data processing by 60% by optimizing **Python/MySQL** ETL pipelines, ensuring faster and more reliable data flows.
- Improved system reliability by designing a custom real-time error-logging system that cut outage response time by 80%.
- Enabled efficient database access by building **FastAPI**-based services, simplifying API development and reducing bottlenecks.

LEADERSHIP & EXTRACURRICULARS

Bruin Sports Analytics | Full Stack Web Developer

January 2024 – Present

- Developed a live Tennis Scoreboard for the UCLA Tennis teams to deliver visualization using **Next.js** and the YouTube Player API.
- Integrated **Firestore** authentication and access control, securing sensitive team data and enabling future platform scaling.
- Restored platform stability by resolving critical data retrieval issues, ending over a month of downtime and improving system reliability.

Bruin Spacecraft Group

President

June 2024 – Present

- Led the organization's first NASA CubeSat Launch Initiative proposal, partnering with project leads, advisors, and the UCLA Space Institute to secure long-term support and funding.
- Designed and launched a technical onboarding curriculum to equip new members with essential skills and drive community engagement.
- Oversaw key operational pillars including documentation, marketing, budgeting, and fundraising — ensuring organizational growth and sustainability.

External Vice President

June 2023 – June 2024

- Secured \$10,000 in funding and a \$60,000 testing sponsorship contract by leading corporate outreach and partnership development.
- Organized 7 successful industry events and collaborations with 3 companies and onboarded an industry advisor for the organization.
- Managed a team of 12 to execute external affairs strategy, including outreach initiatives and UCLA-wide events.

PROJECTS

HitchHiker | <https://github.com/ritzz26/hitchhiker>

- Created a personalized itinerary generator using **OpenAI**, allowing users to plan detailed travel plans through a **TypeScript** web app.
- Implemented secure user authentication with **Google OAuth** and designed a scalable **Firestore** data schema for multi-user itinerary storage.

Jukeboxd | <https://github.com/SreyaMuppalla/jukeboxd>

- Built a music community platform for reviews and discovery, leveraging the Spotify API for real-time track data and music exploration.
- Engineered fast, reliable data fetching using custom **JavaScript** APIs and **Firestore NoSQL** models, supporting thousands of track records.

Flux | <https://fluxapp.carrd.co/>

- Developed a decentralized social media app using the AT Protocol, giving users ownership of their data and identity across platforms.
- Delivered seamless mobile interactions and offline functionality through a cross-platform app built with **React Native**, **Expo**, and **SQLite**.

TECHNICAL SKILLS

- Programming Languages – Python, JavaScript/TypeScript, C++, Java
- Cloud/DevOps – Kubernetes, Docker, AWS, Linux, Terraform
- Frameworks and Tools – Node.js, Reflex, FastAPI, React.js, React Native, Expo, Django, HTML, CSS, PyTorch, Agentic
- Databases – AWS S3, Firestore, PostgreSQL, SQLite, MySQL, MongoDB, NoSQL
- Other Tools and Technologies – Git, Airflow, Databricks, Pytorch, Datadog, Airflow, Grafana, Agile, TDD, AT Protocol, CI/CD, GitHub