Arjun Raj Loomba

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EDUCATION

University of California, Los Angeles — June 2025
B.S. Computer Science (Dean's Honor List) — *Major GPA: 3.72/4.0*

Coursework: Data Structures and Algorithms, Operating Systems, Computer Architecture, FPGA Programming, Unix Tools, Scripting, Version Control, Probability and Statistics, Physics, Linear Algebra, Signal Processing

SKILLS

Languages: C/C++/C#, Python3, SQL, Java, Verilog, JavaScript/TypeScript, HTML/CSS, Bash, Dart, LaTeX
Tools: Git, .NET Core, MSSQL, PostgreSQL, Docker, PyTorch, Node/React JS, Django, Azure, AWS ECS, Agile(Scrum)

EXPERIENCE

The Trade Desk | *Software Engineering Intern* — **Los Angeles, CA (June 2024 - September 2024)**
- Quality Engineering Team

Urban Drive | *Software Engineering Intern* — **New Delhi, India (June 2023 - September 2023)**
- Wrote .NET Core Web APIs and contributed to system design for an online car booking tool.
- Collaborated with marketing team develop a UI with React, Tailwind and contributed to a Python/Pandas data analysis pipeline. 30% increase in new leads.
- Wrote MSSQL queries for a new admin interface to potentially resolve issues 2x faster.

UCLA Scalable Analytics Institute | *Data Researcher* — **Los Angeles, CA (February 2023 - August 2023)**
- Worked under Prof Wei Wang on evaluating college level scientific problem-solving abilities of Large Language Models. Contributed to drafting the research paper SciBench.
- Wrote a Python/Bash script to parse textbooks, saved 10/hrs a week on manual data structuring.

ACM UCLA | *Finance Director* — **Los Angeles, CA (September 2022 - Present)**
- Collaborating with 8 Committees and 300+ officers to organize funds for 4+ events a week.
- Managing budget, liaising with CS department weekly for sponsorships and fundraising. Raised $20000 for 2023-24.

Anderson School of Business | *Developer* — **Los Angeles, CA (February 2022 - October 2022)**
- Maintained Alumni Webpage and wrote a custom Python script to visualize key metrics like pages per visit.
- Monthly visitors increased by 7 to 9 % and script saved the team 3-5 hours a week on manual analysis.

PROJECTS

LendIt | *Co-Founder and Developer* — **Los Angeles, CA (November 2022 - September 2023)**
- Built cross-platform app with Flutter/Firebase for item lending amongst UCLA students. In beta testing, 30 users.
- Utilized Ripple's XRPL ledger and consensus protocol for borrower-lender escrow to prevent item loss and damage.
- Recycled cardboard box for an IOT smart locker prototype to facilitate lending with Raspberry Pi, Python.

Ideagraph | *Full Stack Developer* — **Los Angeles, CA (April 2023)**
- Developed Flask, React application to convert spoken or written notes into a structured mind maps to enhance learning and idea generation. Utilized vector embedding through Cohere APIs and cosine similarity to structure data.
- Collaborated on 'Branch Out' feature that enables users to add notes in real time onto their map with LLMs.

Egyptian Rats | *FPGA Developer* — **Los Angeles, CA (December 2023)**
- Wrote a version of card game Egyptian rats with Basys3 FPGA, Verilog, Vivado, and C.
- Equipped with buttons, a VGA display built with bitmap encodings, and custom clocks for high speed.

Filter the Fake (Medicine) | *Full Stack Developer* — **Los Angeles, CA (December 2023)**
- Built Python, OpenCV pipeline to analyze medicine image features, such as Rx Symbol, text alignment and determine counterfeit probability. Used Django to build Web App and acheived 80% accuracy for around 200 users.

HONORS

State/National: Cal Hacks 2022 - 2nd (in 400 teams), Best use of Ripple API, Wharton investment 2021 - finalist
Collegiate: Bruin Entrepreneurs Startup Labs - Top 3 (in 15 teams), ACM Hack on the Hill - 1st (in 35 teams)