Jai Parera

310-869-0892 | jaiparera@g.ucla.edu | linkedin.com/in/jai-parera | github.com/NFJ1618

Education

University of California, Los Angeles — Los Angeles, CA
Masters of Science in Computer Science — *Sept. 2024 – Jun. 2025*

University of California, Los Angeles — Los Angeles, CA
Bachelors of Science in Computer Science, 3.92 GPA — *Sept. 2020 – Jun. 2024*

Experience

Security Engineer Intern — Jun. 2023 – Sept. 2023
Smartsheet — *Bellevue, WA*
- Designed and implemented an automated AWS cybersecurity response system to detect unusual EC2 activity
- Developed alerts for notable CloudTrail events, integrated real-time incident reporting with ServiceNow, and automated corrective measures including EC2 disablement and sandboxing.
- Implemented a commit verification system using Lambda and GitLab API to ensure AWS resource integrity from approved merge requests, enhancing code quality and traceability and ensuring government compliance

Research Assistant — Oct. 2022 – Jun. 2023
Ozcan Research Group at UCLA — *Los Angeles, CA*
- Researching applications of optical computing to encryption and privacy through physics simulations
- Trained a deep diffractive neural network using PyTorch to use destructive interference to discriminate against visual keys with under 80% similarity to truth key while leaving other keys untouched

Software Engineer Intern — Jun. 2022 – Sept. 2022
Zest AI — *Burbank, CA*
- Owned end-to-end software development and documentation of internal visualization tool in Python
- Built a data pipeline from Snowflake to AWS s3 buckets for loading millions of credit records
- Greatly reduced I/O time with parallelism and used caching with aggregating to decrease file size by 98%
- Designed a web app in Streamlit to enhance data monitoring, streamline data, and empower client interactions

Technology Consulting Intern — Jun. 2021 – Aug. 2021
PwC — *Remote*
- Collaborated on digital assistant development for major B2B enterprises, enhancing customer interactions.
- Optimized chatbot workflows, achieving a 70% boost in productivity by aligning with client objectives.
- Developed and trained extensive conversational patterns using cloud-based Azure NLP services
- Conducted in-depth analysis of user queries and fine-tuned backend for successful MVP demo deployment.

Projects

Roundnet Ratings | *Python, Selenium, Pandas, Matplotlib, Trueskill, PyTorch, Git* — Jul. 2023 – Present
Scraped thousands of competitive Spikeball tournaments to estimate and visualize player skill levels over time

Dropper | *JavaScript, WebGL* — Oct. 2022 – Dec. 2022
Designed a 3D endless runner game with dynamic shaders, random obstacle generation, and custom collision physics

RISC-V CPU Simulator | *C++* — Oct. 2022 – Nov. 2022
Developed simulator that interprets and executes RISC-V instructions in a single-cycle process, incorporating data path and controller design for various instruction types

Loom (Hack on the Hill Winner) | *React, MongoDB, Express, Git* — Mar. 2022
Created a web app in 12 hours for collaborative storytelling with dynamic content and real-time updates.

GiggleMaps (LA Hacks Winner) | *Python, Networkx, Google Maps API, Git* — Mar. 2021
Built a route optimization tool using a novel distributed Dijkstra's approach for traffic and navigation simulation

Technical Skills

Languages: Python, C, C++, SQL (Postgres), JavaScript, HTML/CSS, Bash, Haskell, Lisp
Frameworks: React, Node.js, Streamlit, WebGL, MongoDB, Selenium
Developer Tools: Git, Docker, Terraform, Amazon Web Services, VS Code, Visual Studio
Libraries: PyTorch, pandas, NumPy, Matplotlib OpenMP, MPI, MapReduce, CUDA