Paul Serafimescu

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EDUCATION

University of California, Los Angeles (UCLA)	September 2024 - June 2025
M.S. Computer Science (Thesis)	*Los Angeles, CA*

University of California, Los Angeles (UCLA)	September 2020 - June 2024
B.S. Computer Science and Engineering, B.A. Economics; GPA: 3.8	*Los Angeles, CA*

Relevant Courses: Operating Systems, Data Management Systems, Parallel and Distributed Computing, Machine/Deep Learning, Natural Language Processing, Computer Vision, Statistics, Signal Processing, Advanced Econometrics, Forecasting, Pricing and Strategy, Finance, Investments, Macroeconomic Theory

SKILLS SUMMARY

- Languages   Python, C++, Java, Javascript, R, Haskell/OCaml
- Frameworks   PyTorch, SpringBoot, CUDA, Xilinx/MicroBlaze
- Tools   Git, Docker, Kubernetes, PostgreSQL, FPGA, AWS

EXPERIENCE

Cisco	June 2023 - September 2023
Software Engineering Intern	*San Jose, CA*

- Implemented troubleshooting feature, app manager backend microservice on Cloud IoT Dashboard.
- SpringBoot, PostgreSQL, RabbitMQ, WebSocket, REST API for remote issue identification and diagnostics.
- Developed distributed job scheduling architecture with Java's Quartz for asynchronous tasks.
- Solution scalable to tens of thousands of edge devices and native applications.

Webex	June 2022 - September 2022
Software Engineering Intern	*San Francisco, CA*

- Features on Webex Developer Portal: global search, new Cisco auth flow, API reference, app creation.
- Migrated routing to Next.js from Express and deprecated Redux Router. Rewrote unit tests from Jest + Enzyme to Vitest and React Testing Library.
- Demonstrated viability of React Query and AWS Elasticache to boost performance up to 250% on core features.

DevX	November 2022 - January 2024
Backend and Database Engineer	*Los Angeles, CA*

- Primary backend engineer of new UCLA BResearch undergraduate research portal.
- Implemented a scalable Next.js API design using PostgreSQL on Prisma, deployed on AWS Lambda.
- Project aimed to enhance access to academic research opportunities for UCLA students and faculty through innovative user experience, improved data security and centralization, and reduced latency.

UCLA Samueli School of Engineering	March 2022 - June 2024
Undergraduate Teaching Assistant	*Los Angeles, CA*

- CS 35L (Software Construction): Python, JavaScript, C/Makefile, Bash, developer tools Emacs and Git.
- CS 118 (Networking): C++ BSD Sockets, Intro Distributed Systems, DNS/CDNs, BGP, Network Security
- Facilitate inclusive and collaborative learning during two hour discussion sections.

PROJECTS

- **httpserver** – Multithreaded HTTP/1.0 server built using BSD sockets with basic SQLite3 database wrapper in C

- **remote pathfinder** – High performance low latency realtime embedded image processing and analysis using Basys-3 FPGA boards. Wrote camera module driver in Verilog, soft processor unidirectional WiFi communication, A* pathfinding algorithm with OpenCV in C.

- **statsmodeling** – Modern C++ (17) performance implementation of common statistical and econometric models – OLS, (P)ACF, ARIMA, (G)ARCH – using OpenMP for parallelizable linear algebra and dataframe operations.

- **EEG classification** – Used PyTorch to fit and evaluate CNN + GRU neural network, Transformer, and LSTM models on electroencephalogram dataset aimed at predicting action associated with brain activity over time.

HONORS, AWARDS, ACTIVITIES

- 4x UCLA SEAS Dean's Honors List – 2021, 2022, 2023, 2024
- USA Computing Olympiad Silver – January 2020