

Arya Somasundaram

(510) 641-6099 | arysom992@gmail.com | [linkedin.com/in/arya-soma](https://www.linkedin.com/in/arya-soma) | [Google Scholar](#) | [Github](#) | [Website](#)

Education

B.S. Computer Science - University of California, Los Angeles

June 2028

- Relevant Coursework: Software Construction, Intro to Computer Organizations, Object Oriented Programming (**C++**), Data Structures (**C++**)

Research / Publications

Accepted Paper at NeurIPS 2024 Workshop - Mitigating Biases of LLMs

July 2024 - Nov. 2024

- Implemented and proposed a **Multi-Agent Collaborative Framework** consisting of three unique agents and a RAG system with Python to reduce LLM embedding biases and hallucinations.
- Authored a paper that was accepted to **NeurIPS 2024 Workshop** and uploaded to arXiv cs.CL.

Neuromorphic Computing and Engineering Journal - SpikeATE

June 2024 - Oct. 2024

- Developed a data labeling pipeline using **LLM Agents** to generate aspect B-I-O labels with the Python **spaCy** library for aspect term extraction (ATE) on unlabeled Amazon and Yelp sentiment datasets.
- Co-authored a paper proposing SNNs for ATE published in the peer-reviewed **NCE Journal**.

Experience

AI Engineering Intern - Arvya, Inc

Jun. 2026 - Present

- Building **Python/FastAPI** backend services that use Microsoft Graph, Outlook/Calendar data, **PostgreSQL/PostgREST** to turn user context into source-cited, reviewable updates for IB/PE firms.
- Implemented email rendering with sponsor deal details into Microsoft Outlook, automated CRM update logic on Dealcloud and Salesforce, and wrote **pytest** coverage for CRM approval and integration.

Undergraduate Researcher - UCLA Biomimetic Lab

Nov. 2025 - Jun. 2026

- Simulated EEG signals using MRI data of Alzheimer's disease in the Virtual Brain and developed a Python visualizer for MRI data to analyze Tau Protein Burden in Alzheimer brains with **Matplotlib**.
- Developed a bayesian inference pipeline in Python for observing dementia biomarkers by running Jansen-Rit neural mass model simulations on an 84-node brain connectivity graph using the VBI library.

Software Engineer - UCLA Bruin Racing

Sept. 2025 - Jun. 2026

- Architected a telemetry pipeline in C++ to package arduino byte data and exported data into CSV files with Python using the **pySerial** library to receive serial outputs from the microcontroller.
- Designed a Python depacketizer to decode CSV data and simulated arduino data through **PlatformIO** for integration into an offroad vehicle for inter-collegiate racing competitions.

Full Stack Developer - AdmitTrack

June 2025 - Sept. 2025

- Engineered a scalable web app to assist students with college applications and implemented frontend and backend services on a **MERN** stack (**MongoDB, Express.js, React.js, Node.js**).
- Implemented **RESTful APIs** to provide access to college data based on complex search criteria and implemented **OAuth** based authentication flow for website portal security.

Skills

Programming Languages C++, Python, Java, JavaScript, Bash

Frameworks/ Libraries React.js, Node.js, Express.js, FastAPI, Bootstrap, Pandas, NumPy, pytest

AI/ML Pytorch, Tensorflow, spaCy, HuggingFace, OpenAI APIs, LLMs, FAISS, Autogen

Tools Amazon Web Services (AWS), Git, RESTful APIs, MongoDB, PostgreSQL, RegEx