Steven Arellano

(626) 421-8625 | stevenjarellano2@gmail.com

linkedin.com/in/stevenjarellano | github.com/stevenarellano | stevenarellano.xyz

EDUCATION

The University of Chicago — **Chicago, IL**
(Joint) MS in Computer Science — *Expected 2025*

The University of Chicago — **Chicago, IL**
BA in Computer Science and BA in Economics Spec. Business — *Expected 2025*

- Relevant Coursework: High Performance Computing, Operating Systems, Math Foundations for ML, Compilers, Time Series Analysis and Stochastic Processes, Adv C++, Adv Computer Architecture, Adv Algorithms, Honors Intro To Complexity Theory, Data Intensive Computer Systems (PhD), Algorithmic Game Theory (PhD)
- GPA: 3.56

WORK EXPERIENCE

University of Chicago Department of Computer Science *(Actuated Experience Lab)* — **Chicago, IL**
Researcher — *March 2024 - January 2025*

- Improved performance for LLM robot control by 32% through advanced prompting and PyTorch fine-tuning
- Enabled virtual simulation of multi-robotic systems by integrating real-time location data into a React application
- Developed a web application for users to enter movement and shape requests for a multi-robotic system
- Designed, sliced, and 3D printed 10+ models for robotic systems using Fusion 360 and FlashPrint

Google *(Spanner Database Team)* — **Cambridge, MA**
Software Engineering Intern — *August 2024 - October 2024*

- Increased named schema testing speed by 95% by implementing the feature in a database emulator in C++
- Increased user-defined function testing speed by 95% by implementing the feature in a database emulator in C++

Two Sigma *(Network Software Engineering Team)* — **New York, NY**
Software Engineering Intern — *May 2024 - August 2024*

- Built a data center visualization app providing analytics such as device count, temperature, and power use using React
- Enhanced parallel processing efficiency in an inventory service by migrating the backend from Python to Go
- Developed 5+ gRPC endpoints using Go to provide device data and data visualization support

Google *(Gemini AI Team)* — **New York, NY**
Software Engineering Intern — *April 2023 - July 2023*

- Designed a framework for using LLMs as evaluators on language model task completion and user interactions
- Optimized LLM task performance by 66.21% through experimenting with advanced prompt tuning in Google Colab
- Created 5+ UI components utilizing Angular to call the backend using gRPC and enable client interaction with LLMs
- Developed 9+ gRPC endpoints on the backend utilizing C++ and Python to call LLMs and modify a Spanner database

Sei Labs *(General Engineer)* — **San Francisco, CA**
Software Engineer — *April 2022 - July 2022*

- Integrated 2+ cryptocurrency wallets into the platform Vortex to create a derivatives trading experience
- Built a Typescript SDK with 20+ functions to make gRPC calls and send messages to the Cosmos' blockchain Sei
- Developed the Falcon Wallet Chrome extension and mobile app used by 1000+ users with React and React Native

SELECTED WORKS

Printing Construction (*December 2024 - Present)*: An app – printingconstruction.com – built using React and Rust aggregating news in the field of 3D Printing Construction

A Primer On Initialization (September 2024): A lightning talk covering the basics of initialization in C++ presented at CppCon 2024

SKILLS

Programming Languages: Python, C/C++, JavaScript/TypeScript, Go
Frameworks and Tools: Flask, React, Angular, React Native, Node.js, PostgreSQL, PyTorch, CUDA, OpenMP, MPI
Interests: 3D Printing Construction, Powerlifting, Poker, Green Bay Packers