

STEVEN TRUONG

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EDUCATION

University of California, Los Angeles

October 2020 – November 2025

Mathematics, Ph.D.

- Research: random matrix theory, advised by Professor Jun Yin
- Awards: Edwin W. Pauley Fellowship

EXPERIENCE

Meta, Reality Labs

June 2024 – September 2024

PhD Software Engineer Intern, Systems and Infrastructure

- Refactored an internal Electron app by replacing JSON configuration files parsed by the TypeScript frontend with C++ objects in the backend and used data marshaling to propagate these objects back to the frontend
- Consolidated configuration to one place in the backend, which will reduce developer overhead needed for maintenance and will allow configs to be created during runtime in addition to compile-time

Amazon Devices, Alexa Mobile iOS

June 2023 – September 2023

Software Development Intern

- Scoped out and made code changes needed to deprecate HTTP API calls in favor of Alexa Skills APIs to more reliably request audio assets needed for Alexa's notification announcement feature
- Investigated errors from Alexa's notification announcement feature, including writing SQL queries to determine which app notifications failed to be parsed correctly and to quantify the number of customers impacted

Amazon Devices, Multi-Agent Experiences

June 2022 – September 2022

Software Development Intern

- Drafted the device-side implementation of a new Alexa Voice Services API that will allow one voice assistant (e.g., Alexa) to transfer to another one when unable to complete a customer request
- Wrote thread-safe C++ code, unit tests, and used compile flags with CMake to make building the API optional

Amazon Devices, Alexa On the Go Experiences

June 2021 – September 2021

Software Development Intern

- Collaborated with 5 teams to design and deliver a new Alexa feature that facilitates Whole Foods curbside pickup by proactively prompting a customer and notifying the store when the customer is close to arriving
- Created an AWS CDK application in TypeScript to programmatically provision and configure resources, including Lambda functions triggered by SQS queues and IAM users to distribute read and write permissions
- Designed and implemented an internal Java client to securely deliver serialized customer data to SQS queues

Amazon Devices, Alexa Location Services

June 2020 – September 2020

Software Development Intern

- Developed data analysis and visualization tools for internal debugging, which alerted the Alexa team that the location data collected from beta testers at the time was too sparse by plotting them on a map
- Built a React front-end that uses OpenStreetMap to compare the collected location data to the best fitting real-world route determined by OSRM by visualizing the two paths and calculating their respective lengths
- Wrote a back-end with Node.js and TypeScript which queries Elasticsearch instances and ingests relevant data

PROJECTS

valoquestionmark.com, a dashboard for VALORANT custom games

December 2022 – Present

Developer

- Established a Flask backend to web scrape data and compute statistics that are interesting to players in a personal Discord server, such as win rates, Agent select rates, and interactions with other players
- Devised and created reusable, animated graphs via D3.js to visualize statistics from the backend, including one that uses simulated annealing to stochastically optimize label positions for readability

SKILLS

- JavaScript (TypeScript, Node.js, React), Java, C, C++, Python, \LaTeX