
Education

New York University
Bachelors of Science in Computer Science

Sep 2020 — May 2023
Brooklyn, NY

Experience

Amazon Last Mile 05/2022 — 08/2022 *Seattle, WA* Software Development Engineering Intern
Data Aggregation Service: Created a full stack service to visualize last mile delivery data. Created a Typescript React frontend with Polaris styling that calls an AWS backend implemented with Java Lambda Functions, API Gateway, S3, and Internal Amazon Services. Used S3 Select and Spark to filter through about 1TB per query.

Hewlett Packard Enterprise (Aruba Networks) 06/2019 — 08/2019 *Santa Clara, CA* Cloud Intern
Estimating Bandwidth: Estimated bandwidth using Auto ARIMA/Prophet and other time series algorithms.

NYU High Speed Research Network (HSRN) 02/2021 — 05/2023 *Brooklyn, NY* Academic Researcher
Parallel File System: Deployed an NSF funded 6PB storage PFS (SeaweedFS) for usage internally and externally to the HSRN. Automated Deployment with Ansible Playbooks and Rust CLI. Benchmarked with Bonie++ and IOR.
Clients: Implemented API of internal broker service for Bash, and did core development on Python, C++, and JS
Audio Conferencing: Created an audio service (Portaudio) in C++ that interfaces with internal broker service.
CI/CD: Developed documentation, linting, testing, deployment (DinD with Kaniko) pipelines for the project in Gitlab
Mentorship: Leader of the student research arm. Managed and onboarded over 110 students over 4 semesters.

Sparkup 09/2022 — 12/2022 *Brooklyn, NY* Software Development Engineering Intern
UX Development: Implemented a new feature in React Native App to link names and phone numbers in transactions

Dark Forest 12/2021 — 02/2022 *San Jose, CA* Graphics Intern
Shader Development: Created a typescript plugin that allows for custom WebGL shaders in the Dark Forest game.

Projects

Tweet Toxicity: Used DistilBERT, Pytorch, HuggingFace Transformers, Streamlit and AdamW to classify toxicity type

Wikipedia Editor: Used Spark, LDA, Cohere, NYU HPC/ SLURM for variance in editor topics with 6TB of dumps

Sembox: A drive with semantic searching over doc types with blip, xsum, whisper, bert, cosine similarity, mui/nextjs

Synesthesia Visualizer: Auditory Visual Synthesis Visualizer with librosa, yin, eks, flask, docker, blender, WebVR

Book Recommendation Engine: Wrote a recommendation engine to group books based on wikipedia page similarity.

Apps Status: Built an API with Rust, Tokio Async, Axum, and Reqwest that proxies status for my self-hosted apps

K3S Cluster: Created a portable resilient fault-tolerant k3s cluster that networks through a wireguard mesh (headscale)

College Rank: Extensible meta-ranking from conference proceedings/best papers, placement rank, paper age, interests

Programming Skills

Langs: Typescript, Javascript, Node, C++, C, Rust, Java, Python, (e)Lisp, Bash/Zsh, MDown, JSON, YAML, L^AT_EX

Tech: AWS, Linux, Emacs, QT, Docker, k8s/k3s Rancher, Nginx, Traefik, ReactJS, Tailscale, MongoDB, Postgres, ...

Certifications

AWS Solutions Architect	September 2021
AWS Cloud Practitioner	August 2021
Stanford Machine Learning by Andrew Ng	July 2020
AWS Fundamentals Specialization	June 2020