Sachin Iyer

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https://sachiniyer.com

https://github.com/sachiniyer

Education

New York University Sep 2020 — May 2023

Bachelors of Science in Computer Science *Brooklyn, NY*

Experience

NYU High Speed Research Network (HSRN) Academic Researcher *Brooklyn, NY 02/2021 — 05/2023*

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.

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

Amazon Last Mile Software Development Engineering Intern *Seattle, WA 05/2022 — 08/2022*

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) Cloud Intern *Santa Clara, CA 06/2019 — 08/2019*

Estimating Bandwidth: Estimated bandwidth using Auto ARIMA/Prophet and other time series algorithms.

Sparkup Software Development Engineering Intern *Brooklyn, NY 09/2022 — 12/2022*

UX Development: Implemented a new feature in React Native App to link names and phone numbers in transactions

Dark Forest Graphics Intern *San Jose, CA 12/2021 — 02/2022*

Shader Development: Created a typescript plugin that allows for custom WebGL shaders in the Dark Forest game.

Projects

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

CTF: Built CTF with Docker Compose, Dnsmasq, Postgres, Node MQTT server, Rust/Tide HTTP server and XtermJS

Apps Status: Built an API with Rust, Tokio Async, Axum, and Reqwest that proxies status for my self-hosted apps through a Rust Lambda function with a custom Megalodon-rs that pushes outage statuses to Mastodon every 5 min

Ansible Batch Runner: Used Rust and Clap to create a cli for batch running and managing Ansible Playbooks

Git OpenResty: Created a container that utilized Lua JIT with OpenResty to sync git repos as a git-sync alternative

Reactive Sign: Used AWS IOT, Lambda, and API Gateway to build a interactive LED sign through serverless infra

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

IP Monitor: Used the QT Framework and built a KDE widget to monitor your public and private IP Addresses.

Programming Skills

Langs: Typescript, Javascript, Node, C++, C, Rust, Java, Python, (e)Lisp, Bash/Zsh, Cuda, Kotlin, Perl, Lua, LaTeX

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*