Sachin Iyer

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https://github.com/sachiniyer

Education

New York University Sep 2020 — May 2023

Bachelors of Science in Computer Science *Brooklyn, NY*

Experience

AWS Bedrock *12/2023 — Present* *Seattle, WA* Software Development Engineer

Bedrock: Creating Generative AI infrastructure for AWS Bedrock like batch inference and provisioned throughput

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.

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.

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

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

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

Git-sync Webhooks: Fork of git-sync with webhooks instead of polling. Supports IP whitelists, signatures, and secrets

Mastodon Status: Created a Rust Lambda function with a custom Megalodon-rs to push outage status to Mastodon

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

Programming Skills

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