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 Software Development Engineer
December 2023 —Present *Seattle, WA*

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

NYU High Speed Research Network (HSRN) Academic Researcher
February 2021 —May 2023 *Brooklyn, NY*

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 Software Development Engineering Intern
May 2022 —August 2022 *Seattle, WA*

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
June 2019 —August 2019 *Santa Clara, CA*

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

Sparkup Software Development Engineering Intern
September 2022 —December 2022 *Brooklyn, NY*

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

Dark Forest Graphics Intern
December 2021 —February 2022 *San Jose, CA*

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

Projects

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

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

mnist-wasm: A custom, resource efficient, rust/wasm nn with jit spawned web-workers, yew, axum, wasm-bindgen

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

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

Resow: Created a better Craigslist free section with ReactJS, MUI, Open Layers, Express, MongoDB, S3, Mocha, Jest

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

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

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

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*