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

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.

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.

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

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
Apps Status: Built an API with Rust, Tokio Async, Axum, and Reqwest that proxies status for my self-hosted apps
Synesthesia Visualizer: Auditory Visual Synthesis Visualizer with librosa, yin, eks, flask, docker, blender, WebVR
K3S Cluster: Created a portable resilient fault-tolerant k3s cluster that networks through a wireguard mesh (headscale)
Personal Website: Self-deployed a BabylonJS website with kubernetes k3s and full CI/CD using Custom Git Sync
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*