# 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

**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)
**Personal Website**: Self-deployed a BabylonJS website with kubernetes k3s and full CI/CD using Custom Git Sync
**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*