

Sachin Iyer

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<https://sachiniyer.com>
<https://github.com/sachiniyer>

Education

New York University

Bachelors of Science in Computer Science

Brooklyn, NY

Sep 2020 - Exp. May 2023

Experience

Amazon

Software Development Engineer

Seattle, WA

July 2023

Amazon

Software Development Engineering Intern

Seattle, WA

May 2022 - August 2022

Data Aggregation Service: Created a full stack service to visualize last mile delivery data. Created a Typescript React frontend that calls an AWS API Gateway based backend implemented with Java Lambda Functions, API Gateway, S3, and Internal Amazon Services. Service sifts/caches through up to a TB of data per query with S3 Select.

Deployment/Observability Pipeline: The service is built with the AWS Typescript CDK. It is validated with unit and integration testing before being deployed through CodeDeploy and monitored with CloudWatch alarms and SNS.

NYU High Speed Research Network (HSRN)

Academic Researcher

Brooklyn, NY

February 2021 - Present

Mentorship: Leader of the student research arm. Managed and onboarded over 70+ students over 4 semesters.

Parallel File System: Prototyped filesystems for 6TB storage cluster for usage internally and externally to the HSRN

Client Development: Developed a Bash client, and worked on Python, C++, and Javascript clients for Corelink.

Audio Video Conferencing: Created an audio/video service in C++ that interfaces with the Corelink network.

CI/CD: Developed documentation, testing, and linting pipelines for the project in Gitlab.

Sparkup

Software Development Intern

Brooklyn, NY

September 2022 - December 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

December 2021 - February 2022

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

Hewlett Packard Enterprise (Aruba Networks)

Cloud Intern

Santa Clara, CA

June 2019 - August 2019

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

Projects

Synesthesia Visualizer: Create a visualizer that mimics the experience of Auditory Visual Synthesis with librosa and yin. Utilizes AWS infrastructure (autoscaling ec2 cluster) for compute and WebGL for VR.

Delivery Service: Created a web crawling service to notify available delivery slots for Whole Foods, Costco, or Safeway. Used AWS SNS, ECS, and Lambda functions. Created headless Chrome docker containers running Selenium.

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

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

Personal Website: Deployed a website with self-deployed services k3s and full CI/CD using git-sync.

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

Electronic Trombone: Engineer a trombone midi controller using Arduino with capacitive sensing and pid controllers.

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, MySQL, ...

Certifications

AWS Solutions Architect

September 2021

AWS Cloud Practitioner

August 2021

Stanford Machine Learning by Andrew Ng

July 2020

AWS Fundamentals Specialization

June 2020