Sachin Iyer

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https://sachiniyer.com
https://github.com/sachiniyer

Education

New York University — Brooklyn, NY
Bachelors of Science in Computer Science – Final Year — *May. 2023*

Basis Independent Silicon Valley — San Jose, CA
High School Diploma — *Jul. 2020*

Experience

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

Data Aggregation Service: Created a fullstack service to visualize last mile delivery data. Created a typescript React frontend and an API with AWS CDK, Java Lambda Functions, API Gateway, S3 Compute, and internal Amazon Services. Deployed service with AWS CodeDeploy and validated service with unit and integration testing.

NYU Holodeck (Corelink) — Brooklyn, NY
Academic Researcher — *February 2021 – Present*

Framework Design: Helped design a major portion of the project - plugin interaction within the network.
Client Development: Developed and unified Corelink clients (Python, C++, Bash, Browser, and others)
CI/CD: Developed documentation, testing, and linting pipelines for the project in Gitlab.
Mentorship: Onboarded and managed 20+ people to the service. Created informational documentation and tutorials.
Audio Video Conferencing: Created an audio/video service in C++ that interfaces with the Corelink network.

Dark Forest — San Jose, CA
Graphics Intern — *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) — Santa Clara, CA
Cloud Intern — *June 2019 – August 2019*

Estimating Bandwidth: Estimated bandwidth using Auto ARIMA and other time series ML algorithms.
Unit Testing: Acted as QA tester for team, increasing test coverage throughout the service

Projects

Synesthesia Visualizer: Create a visualizer that mimics the experience of Auditory Visual Synthesis, with audio analysis libraries (e.g. librosa) and through the use of pitch recognition algorithms (e.g. Yin) and frequency spectral analysis. Utilizes pure serverless aws infrastructure (autoscaling ec2 cluster) and WebGL for Virtual Reality.

Delivery Service: Created a web crawling service to send a notification when there is a delivery slot available for Whole Foods, Costco, or Safeway. Used AWS SNS, serverless infrastructure with ECS and Lambda Functions, and selenium with headless chrome instances in docker containers.

Personal Website: Created a website that does real time 3d rendering in pure client side javascript with reactive interactable elements in a fun and playful environment. Also purely serverless and scalable with API Gateway and other interactions with fun lambda functions and other AWS elements.

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

Electronic Trombone: Engineer a midi controller in the form of a trombone using Arduino to apply standard instrument knowledge to electronic applications with capactive sensing and pid controllers.

Programming Skills

Languages: Python, Javascript/Node, C++, C, Rust, Java, (e)Lisp, HTML/CSS, Solidity, Shell Scripting, LaTeX

Technologies: AWS, Linux, Emacs, Docker/Kubernetes, ReactJS, Jupyter Notebooks, NGINX, ...

Certifications

AWS Solutions Architect	*September 2021*
AWS Cloud Practitioner	*August 2021*
Stanford Machine Learning by Andrew Ng	*July 2020*
AWS Fundamentals Specialization	*June 2020*