# Sachin Iyer

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## 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

**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.

**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.

**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

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

**Book Recommendation Engine**: Wrote a recommendation engine to group books based on wikipedia page similarity.

**Foot Pedal**: Built a portable guitar pedal using LiPo batteries, teensy 4.0 (and audio shield), LCD, and custom effects

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

**Circular Buffer**: Wrote a header only circular buffer library in an STL style (e.g. templating, custom iterators).

## 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*