Kavin Sankar

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Education

University of Pittsburgh, Pittsburgh, PA — Aug 2021 – Apr 2025
B.S. in Computer Science & Data Science — **GPA:** 3.8/4.0
Relevant Coursework:

- Cloud Computing, Operating Systems, Database Management Systems, Object-Oriented Programming, Systems Software, Software QA, Machine Learning, Data Science, Data Structures & Algorithms

Skills

Languages: Java, Python, C, C++, JavaScript, SQL, PostgreSQL

Libraries/Software: Kafka, Spring Boot, JUnit, Pytest, JDBC, Oracle DB, Git, Unix/Linux, BitBucket, Jira, Postman

Cloud/Deployment: Docker, Kubernetes, OpenShift, AWS, GCP, Jenkins

Experience

Software Engineer Intern, PNC Financial Services — May 2024 – Aug 2024
Pittsburgh, PA

- Engineered **Kafka consumer services**, ingesting over **125 million** messages daily from users to assist in **real-time** insight generation regarding customer transactions.
- Implemented deserialization, decryption, and transformation operations on ingested messages.
- Upserted transformed message records, storing data in an **Oracle Database** by using **JDBC** and **SQL**.
- Established **CI/CD pipelines**, deploying applications on **OpenShift** by using **Docker** and **Jenkins** to scale services.
- Developed applications utilizing **Kafka** and **Java Spring Boot**.

Software Engineer Intern, Pitt Athletics — Sep 2023 – Apr 2024
Pittsburgh, PA

- Developed **3 Python-based microservices** for data ingestion for over **2.4 million** records.
- Integrated data, using **REST APIs** as primary data sources by designing seamless integration workflows.
- Deployed microservices on **AWS**, utilizing **AWS Lambda** for testing and **AWS Athena** for **SQL** queries.
- Wrote **unit tests**, ensuring **90% code coverage** by using **Pytest** for thorough testing.

CS Undergraduate Teaching Assistant, Unversity of Pittsburgh — Jan 2022 – May 2023
Pittsburgh, PA

- Vastly improved students' ability to solve algorithmic questions by providing targeted instruction and practice.
- Taught students multiple data structures such as **Linked Lists**, **Stacks**, **Queues**, & **Hashmaps**.
- Conducted **Python programming lectures**, covering core concepts and best practices.
- Taught data analysis tools, covering **Pandas**, **NumPy**, and **Matplotlib** by demonstrating practical applications.

Projects

Cinect (Python, Flask, JavaScript, React, Docker, Google Cloud) — Feb 2024 – Apr 2024

- Developed a movie rec system utilizing a **KNN machine learning model** trained on **33 million** ratings to deliver high-quality movie recommendations.
- Implemented using a **Python Flask API** backend and **JavaScript React** frontend.
- Setup a **CI/CD** pipeline using **Google Cloud Build** for automated testing and deployment.
- Utilized **Google Cloud Firestore NoSQL** database to store movie information.

Multi-Threaded & Multi-Process Web Server (C, Pthreads) — Oct 2023 – Oct 2023

- Developed two implementations of a web server with **multithreading** & **multiprocessing**.
- Developed both web servers in **C**, utilizing **threads** and **worker processes**, to improve **parallelism**.
- Efficiently serves up to **500** multiple requests simultaneously.
- Implemented **synchronized** logging functionality to record web page requests.