Kavin Sankar

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🎓 EDUCATION

B.S. in Computer Science & Data Science, *University of Pittsburgh*   Aug 2021 – Apr 2025
GPA: 3.8   Pittsburgh, Pennsylvania
Relevant Coursework:
- Cloud Computing, Operating Systems, Database Management Systems, Object-Oriented Programming, Machine Learning, Data Science, Software QA, Systems Software, Data Structures & Algorithms

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🧠 SKILLS

Java, JavaScript, Python, C, C++, SQL, PostgreSQL │ Docker, Kubernetes, OpenShift, AWS, GCP, Unix/Linux, Git, Jenkins, BitBucket, Jira │
Kafka, Spring Boot, JUnit, Pytest, Oracle DB, Postman │ Object-Oriented Programming, Unit Testing, CI/CD, Data Structures, Algorithms

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💼 WORK EXPERIENCE

Software Engineer Intern, *PNC Financial Services*   May 2024 – Aug 2024
                                                                                     Pittsburgh, PA
- Developed **2 Kafka consumer applications** to ingest **millions** of messages from BIAN topics and end users in an **Agile** environment.
- Implemented deserialization, decryption, and transformation operations of incoming messages.
- Upserted transformed message records to **Oracle Database** using **JDBC** and **SQL**.
- Utilized **Kafka** and **Java Spring Boot** for application development.
- Established a **CI/CD** pipeline with **Docker** and **Jenkins**, deploying the applications on **OpenShift**.
- Conducted API endpoint testing and message ingestion validation using **Postman**.

Software Engineer Intern, *Pitt Athletics*   Sep 2023 – Apr 2024
                                                                                     Pittsburgh, PA
- Developed **3 Python-based microservices** for data ingestion for over **2,400,000 million** records.
- Integrated data from **REST APIs** as primary data sources for microservices.
- Deployed microservices on **AWS**, utilizing **AWS Lambda** for testing and **AWS Athena** for SQL-based data manipulation.
- Wrote **unit tests** using **Pytest** to ensure **90% code coverage** on developed services.

CS Undergraduate Teaching Assistant, *University of Pittsburgh*   Jan 2023 – May 2023
                                                                                     Pittsburgh, United States
- Vastly improved students' ability to solve **data structures & algorithm** type questions.
- Taught students multiple data structures such as **Linked Lists**, **Stacks**, **Queues**, & **Hashmaps**.
- Delivered lectures on **time complexities** and algorithmic **problem-solving techniques**.
- Assisted students in gaining proficiency with the **Java Collections Framework**.

CS Undergraduate Teaching Assistant, *University of Pittsburgh*   Jan 2022 – May 2022
                                                                                     Pittsburgh, United States
- Conducted **Python** programming lectures, covering core concepts and best practices.
- Taught data analysis tools such as **Pandas**, **NumPy**, **Matplotlib**, and **Seaborn**.
- Led a lab for 40 students, providing guidance on assignments and lab instructions.
- Scheduled and maintained regular office hours to meet with students.

📂 PROJECTS

Cinect, *Github* ↗
- Developed a movie recommendation system utilizing a **KNN machine learning** model trained on **33 million** ratings.
- 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**.
- **Deployed** the service on Google Cloud using **Docker** images for **scalability**.
- Utilized Google Cloud Firestore **NoSQL** database to store movie information.

Multi-Threaded & Multi-Process Web Server   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.

🏠 ACTIVITIES AND LEADERSHIP

Girls Who Code, *Instructor*   Oct 2021 – present
- Introduced over **60** elementary school girls to visual block coding through **Scratch** and ignited their passion for programming.
- Presented and explained **computer science** concepts such as the design of algorithms.
- Facilitated discussions between students on **real-world applications** in computing.