AMAN TAHILIANI

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EDUCATION

Georgia Institute of Technology, Atlanta, USA   Aug 2022 - May 2024
Masters of Science in Computer Science (GPA: 4.0/4.0)
Relevant Courses: Intro to Health Informatics (TA), Database System Implementation, ML, DL, Grad Algorithms, Software Analysis and Testing, Advanced Software Engineering, Computing Networks, HCI, Advanced Internet Computing

Jaypee Institute of Information Technology, Noida, India   Jul 2018 - May 2022
BTech. in Computer Science and Engineering (GPA: 8.2/10)

WORK EXPERIENCE

Rimidi Inc.   May 2023 - Dec 2023
Software Engineering Intern   Atlanta, GA

· **Spearheaded** the creation of a universal data-standardization microservice capable of processing patient health information, including smart-device and lab data from **7 EHRs (including Epic and Cerner)** regardless of FHIR API variations (**DSTU, STU3, and R4**), facilitating a **30%** improvement in patient data refresh times compared to the monolith.
· **Slashed 3+ hours of integration effort per week** through enabling push-pull based tenant mapping sync functionality.
· Ensured the microservice's production readiness by employing containerization, configuring **HAProxy and Nginx layers**, and setting up **automated unit tests and docker image builds** using GitHub action
· Championed code cleanliness and maintainability, achieving robust 94% test coverage and logging, guaranteeing **efficiency and scalability** for future growth.
Skills: Django, ReactJs, Postgres, FHIR, HL7v2, Jenkins, AWS, Redis, Epic, Cerner, DynamoDB, OAuth 2.0, SSO

Georgia Institute of Technology   Jan 2023 - May 2024
Graduate Teaching Assistant- CS6440 Health Informatics   Atlanta, GA

· Empowering 120+ graduate students with practical knowledge of integrating software engineering and ML in healthcare.
· Led discussions and **mentored projects** focused on building robust and **scalable software** using containerization technologies for improved healthcare data exchange, using **FHIR, HL7 and Generative AI** .
Skills: Java, React, Python, Docker, Machine Learning, FHIR, Mirth Connect, HL7

Innovaccer   Jan 2022 - Jul 2022
Software Engineer Intern (Product)   India

· Developed a microservice to **monitor Data Platform performance** for tenants in real-time by analyzing 16 platform services, processing over **5,000 patient records a minut**e, using Python, Snowflake, and Kafka, enabling immediate identification of failures and bottlenecks.
· Significantly **increased the efficiency** of our HL7 transformer by reducing the time taken to process 20,000 records by over **25%** by using **multiprocessing** to process batches of HL7v2 messages in parallel.
· Worked in an Agile team of 9 to build and scale the **FHIR-enabled** Data Activation Platform, facilitating ingestion and transformation of **over 100 million records monthly** through 25 microservices and tools in a multi-tenant architecture.
Skills: Python, HL7, CCDA, Snowflask, FHIR, Kafka, AWS, Kubernetes, Agile, Redis, Redshift, Azkaban, ETL

SKILLS

Programming Languages:	Python, C++, Java, Go, SQL, Javascript
Frameworks:	Django, React, PyTorch, Pandas, Numpy, Pandas, Sklearn, NumPy, Matplotlib, Spring Boot, Flask
Tools & Technologies:	Kubernetes, Docker, AWS, Azure, GCP, Kafka, FHIR, HL7v2, Git, CI/CD
Databases:	MySQL, PostgreSQL, MongoDB, Redshift, Snowflake

PROJECTS

Peer-To-Peer Notes Platform Georgia Tech (Go, ReactJs)

· Created a **distributed P2P notes-sharing nework** allowing students to search for and share lecture notes with their peers from across Georgia Tech using the PeerNotes Client filtered by lectures, topics, semesters, and courses.
· Implemented fast and efficient indexing and **node discovery service (similar to Napster) in Go** and ensured enabled **peer ranking** through network contribution history and peer feedback.
Skills: Go, ReactJs, MongoDB, Distributed Programming, P2P networks, Sockets IO

Mult-Threaded Database Buffer Manager (C++)

· Architected and implemented a multi-threaded Database Buffer Manager in C++ featuring a **two-queue (FIFO and LRU) buffer replacement** policy, reducing I/O contention and achieving a **40% boost in read-write performance** compared to traditional LFU and LRU approaches.
· Ensured seamless **multi-user access** and data consistency through meticulous implementation of shared mutexes, enabling both exclusive and non-exclusive operations while successfully **mitigating concurrency-related read-write errors** and safeguarding data integrity.
Skills: C++, Database Buffer Replacement Policies, Mutex, Concurrency Control