

AMAN TAHILIANI

Phone: 4046987570 ◊ Email: amantahiliani7437@gmail.com ◊ LinkedIn: in/amantahiliani

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.

Jun 2024 - Present

Software Engineer

Atlanta, GA

- **Reduced application launch times by 78%** (from 18s to 4s) by optimizing API orchestration and offloading non-critical data sync to **asynchronous background processes**, resulting in a markedly more responsive user experience.
- Accelerated patient data refreshes for patient medication data refresh **from 4 hours to under 30 mins** by architecting and integrating a **high-throughput caching layer with DynamoDB**, allowing near-real-time insights at scale.
- Architected and implemented a modular Patient Data pushback engine that enables the seamless **integration of 15+ patient health data types**, including lab results and device readings from CGM and BP cuffs, into clinician EHR systems via HL7, FHIR, and proprietary APIs. **The adapter pattern was used to support extensible plug-and-play connectivity** for diverse data sources and EHR targets, ensuring maintainability and rapid onboarding of new integrations.

Skills: Python, React, Dynamo DB, Grafana, Jenkins, Asynchronous Programming, Celery

Rimidi Inc.

May 2023 - Dec 2023

Software Engineering Intern (Data Interoperability)

Atlanta, GA

- Led the development of a **universal data-standardization** microservice, ensuring **interoperability** across 8 FHIR API standards, including Epic and Cerner, to manage **patient and medical device data** for over **20,000 patients** daily.
- Enhanced integration efficiency by implementing a **push-pull mapping sync** system, reducing weekly effort by over 3 hours.
- **Expanded platform compatibility** by delivering data translation features, enabling integration with new EHRs (e.g., Mobile Mediclaim) on a SMART on FHIR data security protocol.

Skills: Django, ReactJs, Postgres, Jenkins, AWS, Redis, DynamoDB, OAuth 2.0, SSO, FHIR

Innovaccer

Jan 2022 - Jul 2022

Software Engineer Intern (Data Platform)

India

- Developed a microservice for **real-time monitoring** of Data Platform performance using Flask, Snowflake and Kafka, to process over **5,000 patient records per minute**.
- Boosted HL7 transformer throughput by **25%** via **multiprocessing**, significantly improving the responsiveness of the system for the ingestion of large volumes of data.
- Contributed to scaling the Data Platform to handle **100M+ records/month**, to deliver reliable, high availability services.
- Implemented **bulk database operations** for service route registrations, reducing response time from 16 seconds to under 2.

Skills: Java(Scala), Python, Snowflake, Kafka, AWS, Kubernetes, Agile, Redis, Redshift, Azkaban, ETL

SKILLS

Programming Languages: Python, Go, Java, C++, SQL, Javascript

Frameworks: Django, React, Spring Boot, Flask, PyTorch, Pandas, Numpy, Pandas, Sklearn, NumPy, Matplotlib

Tools & Technologies: Kubernetes, Docker, AWS, Azure, Kafka, Jenkins, Argo CI, Git, CI/CD

Databases: PostgreSQL, MySQL, MongoDB, Redshift, Snowflake

PROJECTS

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

- Created a **distributed P2P notes-sharing network** 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

Multi-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