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.   Jun 2024 - Present
Software Engineer   Atlanta, GA

· Streamlined application launch times from 18 seconds to 4 seconds by refining API call sequences and offloading non-critical patient data synchronization to background processes, significantly enhancing UI responsiveness.
· Compressed platform-level patient data refresh duration from 3 days to 50 minutes by implementing a caching mechanism for medication data using DynamoDB, resulting in substantial performance improvements.
· Designed and programmed a robust and fault-tolerant service for data write-back with advanced logging, error handling, and traceability features, facilitating reliable and efficient data integration workflows.

Skills: Python, Redis, Dynamo DB, Grafana, Jenkins, Asynchronous Programming, Django-Channels

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 the implementation team's weekly effort by over 3 hours.
· **Automated Docker image builds** and push to artifactory, established **testing pipelines** via GitHub Actions, ensuring smooth and confident deployments.

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**.
· Improved HL7 transformer efficiency by **25%** through **multiprocessing**, enhancing system responsiveness.
· Collaborated in an Agile environment to scale the Data Activation Platform, handling **over 100 million records monthly**.
· Implemented **bulk database writes and updates**, reducing service route registration times from over 16 seconds to under 2.

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

SKILLS

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

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

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