AMAN TAHILIANI

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EDUCATION:

Master of Science in Computer Science, Georgia Institute of Technology (4.0/4.0)

Aug 2022 - Present July 2018 - May 2022

July 2018 - May 2022

WORK EXPERIENCE:

Innovaccer Analytics, Noida, India

SDE Intern (Backend)

Feb 2022 - July 2022

- Developed a microservice to aggregate performance metrics of all stages in Data Activation Platform pipelines using **Python**, **Snowflake**, **Kafka**, **and Amazon S3**, identifying 4 bottlenecks in ETL pipelines workflows resulting in an improvement of 18% per EMPI generation.
- Created a framework for success and failure reporting of EMPI (Enterprise Master Patient Index) service resulting in the discovery of 3 bugs and saving 20 minutes of effort per user in a week.
- Fixed all SONAR-identified security vulnerabilities on the Python-based data parsers including HL7, CCLF, and CCDA for the ETL platform, and increased unit-test coverage to 95% in three codebases.

Innovaccer Analytics, Noida, India

Summer Intern (SDE Backend)

May 2021 - August 2021

- Improved and maintained the backend for two platform services, License Management and Platform Configuration using **Django RestFramework** and **PostgreSQL** complete with 95% test coverage.
- Optimized a critical API endpoint by reducing the response time from 16 seconds to 3.
- Reworked the route registration endpoints to support bulk registrations, reducing manual effort.

MEDSupervision, New Delhi, India

Web Development Intern

Oct 2020 - April 2021

- Developed 5 sections of the frontend for the MEDSupervision healthcare platform, using **ReactJs** framework, and optimized load times for the website by an average of 60%.
- Designed the **Flask-based** backend for the Medicine Comparator service to enable instant lookup for information about salts for over 1000 medicines and also equivalent substitutes.

TECHNICAL:

- Programming, Scripting, and Design Languages: Python, C++, Javascript, SQL
- **Development Frameworks:** Django Rest-Framework, Flask, ReactJs
- Tools and Databases; Amazon S3, Kubernetes, PostgreSQL, Snowflake, MongoDB, Redshift, SQLite, MySQL, CI/CD, Git, Pygame, Linux

RELEVANT PROJECTS:

• Database Buffer Manager (2 Queue), CS 6422 Georgia Tech

Aug 2022- Dec 2022

Implemented a Database Buffer Manager in C++ using a two queue buffer replacement policy for frames.

User access was granted using Shared Mutex in exclusive or non exclusive manner depending upon read or write requirements. First in First Out (FIFO) and Least Recently Used (LRU) sub-policies used.

• Symbolic Executor for Python, CS 6422 Georgia Tech

Aug 2022- Dec 2022

Implemented symbolic execution principles to develop an automated test case generator for Python with Z3

SMT solver for proving SAT conditions in the Abstract Syntax Tree (AST) code flows.