SAMIA ZAMAN

110 Washington Pl, Chesterbrook, PA 19087, USA

LINKEDIN | samiatdp17@gmail.com | (984)-329-4026

EDUCATION   Duke University, Durham, N.C.

Computer Science (B.S.), Mathematics (B.S.): GPA 3.79/4.0   *August 2018 - December 2022*

WORK EXPERIENCE

Software Engineer, *Qualcomm Inc., Wayne, PA*   *January 2023 - present*
- Shipped two RESTful microservices in Java, owning each feature end-to-end including design, implementation, and testing.
- Co-authored a patent for a new algorithm in terrestrial positioning technology by leading the algorithm implementation.
- Notably enriched documentation and proactively identified bug fixes, receiving recognition from team members.
- Heavily utilized tools such as Java, Python, Git, Linux shell, Docker, JUnit, and MySQL for development and testing, and Confluence, Jira and GitHub for collaboration and code reviews.

Software Engineer Intern, *Adobe Inc., Durham, NC (remote)*   *May 2022 - Aug 2022*
- Deployed a Java microservice to production which, by enabling caching, brought down response times of two internal REST APIs from 400ms to 40ms, and reduced number of API queries/day by 10 fold, saving significant cloud compute cost per month.
- Won second best project in my business unit and received highly positive feedback from the team for learning independently, taking feedback well, and testing code thoroughly such that all deployments to production ran free of bugs.

Undergraduate Teaching Assistant, *Duke University, Durham, NC*   *Aug 2021 - Oct 2022*
- *Database Systems* course: Mentored 15 students over the course of a semester in creating 3 full-stack Web Apps with an object-oriented design, PostgreSQL database, Python/Java backend, and HTML/CSS frontend.
- *Algorithms* course: Graded problem sets and mentored students for 6-8 hours/week on algorithms and their runtime analysis in both writing proof of an algorithm's correctness and its implementation in Java or Python.

Undergraduate Researcher, *Duke University, Durham, NC*   *May 2020 - June 2022*
- Co-published a paper in ACM FAccT Conference'22 and gained extensive applied computer science research experience such as wrangling large datasets using Python libraries, designing a novel algorithm, writing a technical paper and presenting.

SKILLS & KNOWLEDGE AREAS

Technical skills: Java, Python, C, Git, Bash, Unit/Integration testing frameworks, Docker, C++, Kubernetes, Jenkins, AWS
Knowledge areas: Databases, Design Patterns, Distributed Systems, good documentation, mathematical approach

PROJECTS

A Shopping Website in Python + Flask: With features such as sign-up, rating, reviewing, placing and tracking orders and updating inventory. Designed tables and queries carefully to support low latency joins between tables with 4,000 products and 12,000 orders.

Concurrency Control in C and C++: Implemented a threads-library like that used by operating system kernel to safely run multi-threaded programs. Tested race conditions exhaustively utilizing a scheduler that ran most conceivable thread schedules.

Distributed System in Java: Built a fault tolerant key-value store using Raft Consensus algorithm implemented from the white paper. Tested scenarios such as dozens of clients and servers communicating amid network partitions, server crashes, and request retries.

Operating System software in C and C++: Over the course of a semester built a least recently used (LRU) Cache with 'write-back' or 'write-through' policies, added to codebases of a Linux ext2 Filesystem and a Bootloader, designed a Heap Manager.