

Danish Athar

📍 West Lafayette, Indiana, USA

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EDUCATION

Purdue University

Graduate Student, Computer Engineering

West Lafayette, Indiana, USA

August 2025 - Present

Lahore University of Management Sciences (LUMS)

B.S. in Computer Science; **cGPA: 3.80/4.00** (Graduated with High Distinction)

Lahore, Pakistan

Sep. 2021 - June 2025

PUBLICATIONS

LLM-Enabled Semantic Caching for Affordable Web Access

Paper accepted at WiML @ NeurIPS 2025.

Hafsa Akbar, **Danish Athar**, Muhammad Ayain Fida Rana, Zartash Uzmi, Ihsan Ayyub Qazi, Zafar Ayyub Qazi

EXPERIENCE

Graduate Teaching Assistant, Purdue University

ECE36800 (Data Structures) with Prof. Jongwook Kim.

August 2025 – Present

Research Assistant, LUMS

Advised by Dr. Zafar Ayyub Qazi, Dr. Ihsan Ayyub Qazi and Dr. Zartash Afzal Uzmi

May 2023 - August 2025

- Developed a server-side semantic caching mechanism using LLMs and scraped 2500 news articles for evaluating the scheme against traditional caching.
- Conducted a user study with 35+ participants comparing browser performance and web affordability solutions, contributing to the [AW4A paper](#) (accepted at SIGCOMM '23).
- Developed automation pipelines using Python, Selenium, and LLM APIs to process unstructured network measurement data, improving data extraction efficiency by 80%.

Teaching Assistant, LUMS

CS582 (head TA), CS100 (head TA), CS382, FutureTech @ LUMS

September 2023 – May 2025

- Managed teams of 5+ TAs across networking & distributed systems courses, coordinating logistics for 200+ students.
- Designed programming assignments, automated grading systems, and conducted tutorials in Python, C++, and Golang.

Programming Intern

SenPi (Remote)

June 2022 – September 2022

- Worked on web and app development using the MERN (MongoDB, Express, React, and Node) stack and React Native.

DEVELOPMENT PROJECTS

Note: Code and demos available on request.

Distributed Key-Value Store | Golang

- Developed a fault-tolerant distributed key-value store using the Raft consensus algorithm, including leader election and log replication.

Distributed Hash Table | Python

- Created a distributed hash table using socket programming, supporting a peer-to-peer model with failure tolerance.

Command Line Shell | C

- Implemented a basic shell replicating UNIX shell functionalities, including pipelining and command chaining.

Basic File System | C

- Implemented a simplified version of a UNIX file system that organizes memory into superblocks, inodes, and data blocks.

Second Time Around | MERN Stack

- Developed 'Second Time Around', a web app for a marketplace featuring ML-powered recommendations.

SKILLS

Programming Languages: C, C++, Python, Golang, JavaScript, Haskell, TypeScript, HTML

Areas: Generative AI, Machine Learning, Networking and Systems, Web and Automation, DevOps/Tools