MUHAMMAD JAZLAN

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EDUCATION

PhD., Computer Science, University of California, Davis   Expected 2029
Research: Systems, Privacy in Networks, LLMs

BSc., Computer Science, Lahore University of Mangement Sciences, *CGPA:* **3.679**   2020 - 2024
Relevant Coursework: Topics in Internet Research, Distributed Systems, Machine Learning, Operating Systems, Network Security, Databases, Data Science

RESEARCH EXPERIENCE

Graduate Student Researcher   August 2024 - Present
University of California, Davis   *Davis, USA*

- Created a novel anti tracking framework with generative AI achieving higher accuracy compared to classical techniques, slightly lower than SOTA models.
- Using Generative AI to solve privacy and tracking problems.

Research Assistant   May 2023 - July 2024
Networks Research Group @ LUMS   *Lahore, Pakistan*

- Currently working on a low-latency datastore optimzed for Multi Access Edge Computing.
- Lab Lead for a research project on a Cognitive Study of current LLMs.
- Worked on developing an LSTM model for Handover and Base Station Prediction, achieving 97%+ accuracy on a High Speed Rail Dataset.

RESEARCH PROJECTS

A Low Latency Datastore for MAEC in Next Gen Networks   Sep 2023 - August 2024
Networks Research Group @ LUMS   *Lahore, Pakistan*

- Designed and developed a Low Latency Datastore aimed at minimizing application downtime during data migration processes.
- Explored state-of-the-art low latency datastores, including Redis, Memcached, Zookeeper, and Port Key, to inform the development process.
- Created a Rapid Queue Algorithm to preserve frequency-based ordering without sorting
- Implemented custom protocols to mitigate network overhead associated with data migration while reducing latency.
- Implemented a prototype in Python and benchmarked against Redis, achieved similar performance.

TEACHING EXPERIENCE

Graduate Teaching Assistant   August 2024 - Present
University of California   *Davis, California*

- **ECS 152A - Introduction to Networks** in Fall Quarter 2024 with Dr Zubair Shafiq
- **ECS 32A - Introduction to Programming** in Spring Quarter 20225 with Dr Zubair Shafiq

Teaching Assistant   January 2022 - May 2024
LUMS   *Lahore, Pakistan*

A list of courses I have assisted with

- **CS 370 - Operating Systems** in Fall 2023 with Dr Hamad Alizai
- **CS 382 - Network Centric Computing** in Spring 2023 with Dr Zafar Ayub Qazi
- **CS 200 - Introduction to Programming** in Fall 2022 with Dr Muhammad Awais
- **CS 210 - Discrete Mathematics** in Fall 2022 with Dr Imadadullah Khan

AWARDS AND HONORS

- Awarded the NSF 'Protecting Personal Data Flow on the Internet.' fellowship
- Ranked in **top 10%** of LUMS SBASSE Batch of 2024
- Placed on Deans Honor List for **2020-23**
- Top 50 in Pakistan for Mathematics in the National Science and Talent Contest

PROFESSIONAL EXPERIENCE

Consulting Developer   Jan 2024 - September 2024
Kavelogics   *Lahore, Pakistan*

- Served as the lead consultant and chief systems architect for Kavelogics, a software firm in Pakistan
- Developed the [Kavelogics website](#)

Lead Developer   Sep 2023 - Jan 2024
Studio Lichi   *Lahore, Pakistan*

- Served as the lead web developer for Studio Lichi
- Developing a [website](#), blog and store using NextJS, Sanity and Shopify
- Currently designing the frontend and overall architecture for the website

DEVELOPMENT PROJECTS

User Level Threading Library Created a user-level threading library in C, using concepts of registers, context switching and scheduling. I made use of the `setjmp` library to provide the illusion of context switching. This project was eventually used as a template for a course assignment in Operating Systems.

SKILLS

Languages	C, C++, Python, Go, Typescript, Bash
Frameworks	React, React Native, FastAPI, ExpressJS, Tensorflow, PyTorch, MongoDB, MySQL
Tools	Linux, Git, TailwindCSS, Jira, Postman, Wordpress, Docker, AWS (EC2), DigitalOcean