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JEHANGIR KAZI

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Education

BS in Computer Science

Lahore University of Management Sciences

2014-2018

Cumulative GPA: 3.7

Relevant Courses

Computer and Network Security

- Implemented cryptographic algorithms and encryption schemes, and demonstrated exploits for standard vulnerabilities in web pages and IoT devices.

Software Engineering

- Built a **cross-platform** application in **React-Native** to serve as a complete guide to horticulture in LUMS, following the **Agile development** pattern.

Human Computer Interaction

- Conducted an **extensive user study**, of more than **60 participants**, and, using the design process for analysis, prototyping, testing, and implementation, designed and developed a platform to connect **blood donors to patients** in Pakistan.
- Implemented a **complete end-to-end platform** including developing an **android application** based on the findings of our study into stakeholders' requirements and preferences.

Advanced Programming

- Implemented Barnes-Hut Algorithm for 2D and 3D galaxy simulations using pure **functional programming** in **Haskell**.
- Implemented several web based games using the **asynchronous** Client-Server model in **JavaScript**.
- Converted sequential programs to **multi-threaded programs** using Fork Join and threads in **Java**.

Artificial Intelligence

- Implemented AI techniques in **Python**; **heuristic search trees**, minimax algorithms, **decision trees**, **genetic learning** algorithms, and **artificial neural networks**, to solve problems like game playing agents.

Experience

Software Engineering Intern

Google Inc.

2017

- Worked on infrastructure project, details subject to NDA.

Research Assistant

Lahore University of Management Sciences

2016-2017

- Implemented specialized clustering program, using **multi-threaded programming in C++**, that was **25x faster** (reduced the run time from **more than 24 hours to less than one hour**) than standard library implementations.
- Independently handled the data processing and analysis in the project, which included designing and implementing efficient algorithms, **scalable** to large datasets of **millions**.
- Sole sophomore **co-author on research project** focused on predicting typing errors in URLs to reduce unaddressed squat space.

Teaching Assistant

Lahore University of Management Sciences

2016-2017

- Led the course staff as the Teaching Assistant for CS300; the **most advanced programming course** taught at LUMS.
- Independently prepared, invigilated, and graded course examinations and assignments.
- Conducted tutorials and managed lectures, which involved **reaching out to students** and solving problems faced in the course.

Skills

- | | | |
|--------------|----------------------------------|---------------------------------|
| • C++ | • Java | • Usability Research |
| • Python | • Verilog | • Algorithm Design and Analysis |
| • Haskell | • x64 Assembly | • Artificial Neural Networks |
| • Javascript | • Database design and Management | • Computer Architecture Design |

Awards and Extracurricular Activities

Winner, FC College Programming Competition

2017

Runner-up, PUCIT ACM Programming Competition

2017

Dean's Honor List, Lahore University of Management Sciences

2014-2017

Event Coverage, LUMS Photographic Society

2015-2016

Event Organizer, LUMS International Science Olympiad

2014-2015

Event Head, Karachi Grammar School Science Olympiad

2014