Ali Hassaan Mughal

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Interests

Datastructures
Algorithms,
AI, Programming,
Parallel Computing,
MYSQL, Research,
Maths & Hiking.

Web & Git

LinkedIn
GitHub

Programming

OOP, Python, C, C++,
Java, HTML, CSS,
Laravel & PHP

Objective

Enthusiastic to be a part of revolution through Computer Science & Technology.

Education

2016 - 2020   **BS Computer Science**   National University of Sciences & Technology, Pakistan
CGPA: 3.81/4.00 (Rank: 2 / 38)
Major: Computer Science Minor: Mathematics.

2014 - 2016   **Intermediate in Pre-Engineering**   Islamabad College For Boys G6/3, Pakistan
Aggregate: 75.82%
Major: Mathematics, Physics and Chemistry.

2012 - 2014   **Matriculation in Computer Science**   Islamabad College For Boys G6/3, Pakistan
Aggregate: 87.62 (Rank: 1 / 44)
Main subjects: Computer Science, Mathematics, Physics and Chemistry.

Projects

01/2018   **Search Engine (Highest Ranking in Batch)**   Data Structures & Algorithms
Language: Java
For basic understanding took help from Google's research paper called large-scale search engine.
Maximized the use of data structures like lists, hash tables and Java's SAX-Parser API to process data and search through it. The single word search had a complexity of $\theta(1)$ and multi word search was $\theta(nLogn)$.

01/2018   **Sahulat (2nd in Batch)**   Database Project
Language: Laravel (PHP) (MYSQL)
An application which provides detail about the services available in a specific location in any country with their distances and ratings. The idea was to solve problem of finding good service providers and to display best results based on cumulative ranking based on their ratings and distance. Providers could add data about their services and people could rate them and search according the ratings.

12/2017   **Garden Watering System**   Internet Of Things
Language: C/C++ for Arduino
A system for watering the garden according to the moisture of each plant's soil. It waters the garden when the moisture drops down the threshold level for a defined time. The technique used was water dripping through pipe.

05/2017	**Shipping Optimization System**	Object Oriented Programming

Language: Java (Object Oriented)
A system which calculates the closest route for delivery of products using Google maps APIs. It searched the shops for items, if the item was found it calculated the distance from each shop to customer and chose the best possible route for the delivery based on the distance. **My instructor liked this idea a lot.**

Previous	**Small Projects**	Python/Javascript/C

Locator (Python and JavaScript): It used browser to track present location of user through javascript and scrapped that data into python.
RSA (C): It was an encryption algorithm using prime numbers.
Image Editor (C): Edits images with some defined effects.

Experience

02/18 - 03/18	**R & D Intern**	TUKL Lab, SEECS, NUST H12, Islamabad, Pakistan

Instructor: Dr. Faisal Shafait.
Subject: Deep Learning.
I researched on table data extraction algorithms using Deep learning.

09/17 - 01/18	**Teaching Assistant**	SEECS, NUST H12, Islamabad, Pakistan

Instructor: Ms. Sana Khalique.
Subject: Fundamentals of Computer Programming.
Assigned duty was to research about student's programming problems and help students in programming & projects. It also included assisting professor in grading quizzes, assignments and laboratory material.

07/17 - 08/18	**Web Development Intern**	Ausomatic, CIE, NUST H12, Islamabad, Pakistan

It was a research cum development internship. I was assigned the task of researching new technologies that can be used for better results. Developed modules of a college management system using following the technologies: Laravel (PHP), Javascript, Ajax and Jquery, SQL, HTML & CSS.

06/17 - 07/17	**Web Development Intern**	KTH LAB, SEECS, NUST H12, Islamabad, Pakistan

Worked on a point of sale system using the following technologies:MySQL, Laravel(PHP), Javascript, HTML & CSS.

Courses

02/2018	**Deep Learning (Scholarship)**	DeepLearning.ai on Coursera

It is a series of 5 courses related to deep learning including CNNs, RNNs, GRUs and LSTMs.

Certifications

12/2016	**Office 2013 Specialist**	Microsoft

Microsoft Excel, Microsoft Word and Microsoft PowerPoint.

Accomplishments

| 02/2018 | **Merit Based Scholarship** | National University of Sciences and Technology, Pakistan |

I have received merit based scholarships thrice in a row.

| 08/2014 | **Education Scholarship** | Islamabad College For Boys G6/3, Pakistan |

Free education on merit in my college.

| 07/2014 | **Topped High School** | Islamabad College For Boys G6/3, Pakistan |

Topper of my Computer Science batch in high school.