Mohd Muhtasim Bashar

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Education

Qatar University — *Doha, Qatar*
B.Sc in Computer Science (4^{th} Year) — *Aug 2022 - June 2026*

- GPA: 3.90/4.0 - Vice President's List and three time Dean's List Student
- **Coursework:** Programming in Python, Object Oriented Programming (Java), Data Structures, Algorithms, Fundamentals of Database, Computer Architecture, Computer Security, Software Engineering, Data Communication and Networks, Web Development, Data Science, Operating System, Neural networks & Deep learning.

Experience

Grid Software Intern - Smart Infrastructure — *Doha, Qatar*
Siemens WLL — *June 2025 - July 2025*

- Trained and deployed LSTM-based AI models on smart meter data to forecast electricity consumption patterns, improving forecasting accuracy and supporting smarter grid planning decisions.
- Built an interactive Power BI dashboard using real-time data from Meter Data Management Systems (MDMS) to enhance Kahramaa's visibility in low-voltage networks, enabling energy-saving insights and identifying potential revenue opportunities.
- Contributed to a smart monitoring solution for Msheireb, configuring Modbus, BACnet, and MQTT protocols to connect Multi-Function Meters (MFMs) to IoT gateways, enabling real-time tracking of solar panel efficiency and meter data.
- Supported the technical sales team in preparing documentation for a Grid Software (PSS® SINCAL) proposal, aimed at winning the 2.8M QAR EWA Bahrain bid, helping align solution features with client energy planning needs.

Research Intern — *Qatar University*
Summer Research Internship Program — *May 2024 – Aug 2024*

- Used Artificial Intelligence to develop an automated data screening and extraction tool that utilizes text mining to extract drugs from literatures and calculate their effects on bleeding, reducing workload and increasing productivity by 70%.
- Conducted a systematic literature review under College of Dental Medicine, on drugs that affect bleeding, focusing on anti-platelet, anti-thrombotic, and other medications.
- Conducted manual literature screening with 8 team members to analyze drug effects on bleeding, ensuring accurate inclusion/exclusion according to FDA standards, and providing baseline data to validate AI's efficiency.

Tech Team Member — *Qatar University*
Association for Computing Machinery - QU Chapter — *May 2025 – Present*

- Selected to join the core technical team of ACM QU to drive high-impact, student-led tech initiatives.
- Actively contributing to ACM Chapter initiatives, including technical projects to enhance student learning and university life, and launching a Software Engineering Internship Program to provide real-world experience for junior students.

Projects

CampConnect — *github.com/campconnec*

- Developed a mobile app using Flutter to display nearby educational camps using geolocation, connecting displaced children to educational opportunities in crisis-affected areas such as Gaza, Syria, and Sudan.
- Used Firebase to manage app data on the Cloud Firestore and perform user authentication, ensuring real-time data synchronization across devices and secure access.
- Qualified for the final round of the Lifelines Hackathon 2025, standing out among 65 competing teams and showcasing its potential to drive real-world impact in crisis zones.

UniTrack — *github.com/unitrack*

- Built a student and course management web application using Next.js, React, and Prisma, enabling efficient data storage and retrieval from an SQLite database, resulting in a highly responsive and scalable system.
- Automated database seeding with a custom seed.js script to populate the database with 500+ students, 50+ courses, and various instructors, enhancing the application's usability and ensuring data consistency.
- Created RESTful APIs and server actions in Next.js, incorporating JWT authentication & OAuth to securely manage user roles, ensuring a seamless and secure user experience.

Genocide in Gaza: Telling the Story through Data Science *github.com/dsproject*

- Analyzed over 18,000 individual fatality records and 566 days of daily casualty reports from the TechForPalestine dataset, uncovering key demographic and temporal trends in the ongoing humanitarian crisis.
- Utilized Python, NumPy, and matplotlib for data cleaning, statistical analysis, and visual storytelling to present evidence of disproportionate impacts on civilians.
- Demonstrated statistical significance of patterns in age distributions of victims, correlation between infrastructure damage and civilian deaths, and regional differences in casualty rates.

Real-estate market price predictor

- Performed exploratory data analysis (EDA) using Python libraries such as Pandas, NumPy, and Matplotlib/Seaborn to identify key trends, correlations, and insights in the housing market dataset.
- Built and evaluated predictive models using machine learning libraries like Scikit-learn to forecast house prices based on property features, and achieving a prediction accuracy of 75%.

Intelligent Elevator Stop Optimizer

- Built a simulation tool as measured by its ability to handle varying inputs like number of stops and passenger destinations by designing and implementing cost analysis logic in Java.
- Enforced greedy algorithm to determine the most cost-effective lift stops, reducing total walking distance of passengers by 50% & minimizing electricity consumption by 24%.

Technologies

Languages: Java, Python, C, Dart, JavaScript, SQL, Bash, Assembly

Frameworks and Technologies: HTML, CSS, React, NEXT.js, Tailwind CSS, Prisma, Mocha, Chai, Tensorflow, Keras, HuggingFace, Flutter, Github, Firebase, Linux, Vercel, JupyterLab, MATLAB, Minitab, JavaFX, Kali Linux, Ubuntu, Figma, Visual Paradigm

Packages: datascience, NumPy, Matplotlib, Pandas, Scikit-learn, Seaborn, Riverpod, Dio, Floor

Relevant Skills: Power BI, LaTeX, Microsoft Office, Powerpoint, Excel, Word, Project

Certifications

Data Analysis with Python: *IBM* *May 2024*
IBM & Coursera

Cisco Certified Network Associate 1: Introduction to Networks *Dec 2024*
Cisco Network Academy