Jamal Shuaib

SCS '30 - Carnegie Mellon University Qatar

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British

Profile

CS Major at Carnegie Mellon University Qatar with a focus on cybersecurity and machine learning. Independently built a network vulnerability scanner and trained deep learning models for medical image classification. Interested in the application of technology to humanitarian challenges.

Skills

Technical
Python (Advanced); Machine Learning & Deep Learning (PyTorch, TensorFlow/Keras, CNNs, MLPs, VGG-16, transfer learning); Data Analysis (pandas, scikit-learn); Version Control (Git, GitHub)

Cybersecurity
TCP/IP, socket programming, SSL/TLS, vulnerability assessment, port enumeration, HTTP security analysis, network security principles

General
Research & Technical Writing

Courses

Fundamentals of Programming & CS, Concepts of Mathematics, Matrices & Linear Transformations, Reading & Writing in an Academic Context,
Carnegie Mellon University

Education

Carnegie Mellon University in Qatar,
BSc Computer Science
09/2026 – 05/2030 | Doha, Qatar

Doha College, *IGCSE & International A Levels (IAL)*
01/2021 – 06/2026 | Doha, Qatar

- A-Level : A*A*AA + A* | Mathematics, Computer Science, Psychology, Physics + EPQ
- AS-Level: AAAA | Mathematics, Computer Science, Psychology, Physics
- iGCSE: A*A*A*A*A*A*A*A*B

Projects

Network Vulnerability Scanner,
Independent Project | Cybersecurity
04/2026 – 07/2026
Developed a modular Python CLI vulnerability scanner with TCP port scanning, banner grabbing, HTTP header analysis, open-redirect detection, SSL/TLS certificate validation, and timestamped reporting. Built in six modules and tested against a live host.

CLI Password Manager,
Independent Project | Cybersecurity
2025
Built a command-line password manager in Python with passwords hashed using bcrypt and stored locally in JSON. Designed with OOP principles across modular files, emphasising secure credential handling and clean code architecture.

EPQ Dissertation - AI, Human Rationality and the Alignment Challenge,
Research Paper | Artificial Intelligence & Psychology
2025 – 2026

Authored an independent research dissertation examining AI decision-making through normative vs. descriptive rationality models, drawing on economic utility theory and cognitive psychology. Graded at A* by Pearson Edexcel

ML Research - Colorectal Cancer Detection,
InspiritAI, AI Scholars Programme | AI in Healthcare
2024
Built a deep learning pipeline classifying colorectal cancer from histopathology images, progressing through MLP, custom CNN, and VGG-16 transfer learning to achieve 91.3% accuracy. Applied batch normalisation, dropout regularisation, and data augmentation to improve generalisation. Presented to 100+ peers including MIT and Stanford alumni.

Honours & Achievements

2× High Achievers Award
Exceptional grades in IGCSEs and AS Levels

Physics, *Harvard Crimson Bowl 2025*
MENA & Africa Regional Champion; 3rd Place Internationally

Chemistry, *Harvard Crimson Bowl 2025*
National Champion; 3rd Place, MENA & Africa

Mathematics, *Harvard Crimson Bowl 2025*
3rd Place, Qatar

Honours Award,
MIT EWB Science & Engineering Competition

Experience

Carnegie Mellon University Qatar,
Summer Program Participant
2024 | Doha, Qatar
Completed rigorous academic modules in Programming, Calculus, Computer Science, and English earning A's across all subjects, culminating in the development of a voice-activated Finch robot capable of playing Tic-Tac-Toe using ML-driven speech recognition and Python game logic.

Evo Sports Qatar, *Volunteer Basketball Coach*
2024
Coached under-8s over 6 months, designing age-appropriate drills to develop foundational skills.

Interests

Cybersecurity and Offensive Tooling, AI in Healthcare, Machine Learning for Humanitarian Application