# Muhammad Affan Qureshi

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#### **Education**

## Imperial College London, MEng Electrical and Electronic Engineering

2014 - 2018

- First Class in 2<sup>nd</sup> year (75.6%) and 1<sup>st</sup> year (73.5%)
- 3<sup>rd</sup> Year Modules: Artificial Intelligence, Machine Learning, High Level Programming, Embedded Systems, Math for Signals and Systems, Control Engineering, Communication Systems
- Relevant 1<sup>st</sup> and 2<sup>nd</sup> Year Modules: Algorithms and Data Structures, Algorithms and Complexity, Computer Architecture, Digital Electronics and Mathematics

### GCE A-Levels – 3 A\*s, 1 A

2012 - 2014

• A\* in Mathematics, Physics and Chemistry; A in Further Mathematics

### **Work Experience**

# **Pepsi-Cola International**

July 2016 - August 2016

- Intern in the Packaging Department at the Frito Lays Snacks Plant
- Achieved 10% reduction in the monthly cost of operating supplies by making the maintenance process more efficient, more specifically:
  - Created a database to record used supplies and trained unskilled labour to use the database
  - Introduced issuance slips for better accountability
- Gained working knowledge of the whole plant, including the electrical network, PLCs, multihead weigher and bag making machines

PowerSoft19 June 2015 – August 2015

- PowerSoft19 is a technology services and consulting company with several Fortune 500 clients
- As part of the Automation Team, I was involved in:
  - Automated testing of gas sensors used in the oil and gas industry
  - Making the Microsoft Windows GUI perform specific tasks using the Autolt scripting language
  - Working on the .NET framework

### **Group Projects**

- ARM Assembler and Emulator A subset of Cortex-M3 Instruction Set (F#)
  - Implemented the machine state and memory instructions
  - Used FsCheck and Expecto for testing
  - Used git for version control and code collaboration
- 2<sup>nd</sup> Place among 24 teams at the Cisco University Challenge 2015
- 2<sup>nd</sup> year group project Built a prototype wireless power transmission device, aimed for the medical industry, that could charge an iPad Pro with a 1" space between transmitter and receiver. Was responsible for DC to AC conversion module needed for the transmitter
- 1st year group project Built a line following robot. Worked on circuitry and microprocessor programming
- Designed an automated data recording system to monitor health of natural streams and waterways for Nepal Water for Health (NGO) as part of the Engineers Without Borders Challenge

### **Skills**

### **Programming**

- Proficient in C++, F#, MATLAB and ARM Assembly
- · Experience with Python, Rust and Verilog

#### Languages

English (fluent), Urdu (native), Arabic (elementary)