

Nasim Mohammed Miah

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Email: [X](#)

Mobile: X

Portfolio: <https://nasimmm.github.io>

Education:

Imperial College London

Electrical & Electronic Engineering MEng
3rd year Student, on track for 2:1

Oct 2017 – Present

Woodhouse College:

Mathematics (A*), Physics (A), Chemistry (A)

Aug 2015 – Jun 2017

Languages:

C++ | Python | MATLAB | HTML/CSS/JavaScript | Verilog | Assembly

Technical Projects:

Mood of the Nation – IBM

Apr – Jun 2021

- Designed web-application to collect tweets and provide easy to use data visualisations (HTML/CSS)
- Connected Twitter API, Firestore API and IBM's proprietary machine learning APIs in NodeRED
- Firestore database accessed in front-end, data processed and visualised using Anycharts API (JavaScript)

Pharmaceuticals Monitoring System – IoT

- Developed a cheap monitoring system to detect environmental changes and monitor sensitive medicines
- Peripherals integrated using i2c and remote server communication implemented using MQTT (Python)

Vector Network Analyser

- Designed and Simulated a Vector Network Analyser in LTSpice and processed data in MATLAB script
- Using a dual shunt implementation to sense currents of 2 port/3 terminal devices
- Applied IQ modulation & FFT methods to acquire vector voltages & currents to calculate Y-parameters

6502 based Breadboard Computer

- Built and assembled breadboard computer based on the W65C02 microprocessor
- Devised a custom Arduino programmer and manually flashed EEPROM according to timing constraints

Skills and Competencies:

Digital Design

- Synthesized digital systems using Verilog and developed on FPGA hardware
- Fabricated Finite State Machines, real-time audio processing loops, a simple DAC and other systems

Programming

- Programmed digital synthesizer using real-time programming techniques, multiple threads and interrupts
- Implemented 'Mastermind' code breaking algorithm and '2048' game (C++)

Employment History:

Tutor

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Sep 2017 – Present

GCSE & A-Level (Maths and Science) Tutoring

- Teaching and advising students of all levels from primary up to A-Level
- Communicating and teaching complex ideas in a clear and concise manner

STEM Outreach e-mentor

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Sep 2020 – Apr 2021

- Mentored A-level students with regards to post college options and university applications

Sales Assistant – The Stockroom

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Jul – Aug 2017

Sales Assistant – Blue Inc.

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Apr – Jun 2015

- Exceptional communication and salesmanship skills as well as team working abilities