# Nasim XX

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**Email:**
**Mobile:**

## Education:

**Imperial College London**

Electrical & Electronic Engineering MEng                                 Oct 2017 – Present

Currently 3rd year Student, on track for 2:1

**Woodhouse College:**                                                           Aug 2015 – Jun 2017

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

## Languages:

C++ | Python | Assembly | Verilog | MATLAB

## Skills and Competencies:

**Analogue Design**
- 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 devices
- Applied IQ modulation & FFT methods to acquire vector voltages & currents to calculate Y-parameters

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

**Programming (C++)**
- Programmed digital synthesizer using multiple threads and interrupts
- Created and programmed 'Mastermind' code breaking algorithm to solve for user selected constraints
- Programmed and developed 2048 game

**Lab Work**
- Experience in a lab environment and adept with oscilloscopes, signal generators, soldering irons, etc.
- Designed a dual layer PCB for a lab project using Altium CircuitMaker

## Projects:

Broadband Amplifier
- Designed and manufactured broadband amplifier from discrete op-amps
- Achieved specifications such as low & high cut off frequencies of 1kHz and 100kHz and 100dB gain

Wirelessly controlled rover – 1st year project
- Designed Arduino based Bluetooth controlled rover to detect various signal combinations
- Built instruments/sensors to detect radio, magnetic, IR and acoustic signals

6502 based Computer – Personal
- Built and assembled breadboard computer based on the W65C02S microprocessor
- Devised a custom Arduino programmer and manually flashed EEPROM according to timing constraints

## Employment History:

**Private Tutor**                    (London, UK)                        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**        (London, UK)                        Sep 2020 – Apr 2021
- Mentored A-level students with regards to post college options and university applications

**Sales Assistant – The Stockroom**   (London, UK)                        Jul – Aug 2017

**Sales Assistant – Blue Inc.**       (London, UK)                        Apr – Jun 2015
- Exceptional communication and salesmanship skills as well as team working abilities