

Moin Bukhari

moinbukhari4321@gmail.com | 07482480115 | smb18@ic.ac.uk

3rd Year M.Eng Student of Electrical and Information Engineering at Imperial College seeking a summer internship

EDUCATION

IMPERIAL COLLEGE LONDON

MENG IN ELECTRONIC & INFORMATION
ENGINEERING

On track for 2:1 or Higher

Oct 2018 - Jul 2022 | South Kensington, London

BETHS GRAMMAR SCHOOL

A-LEVELS

Sep 2016 - Aug 2018 | Bexley, London

Maths: A*, Electronics: A*

Further Maths: A, Physics: A, Chemistry: A

MODULES & SKILLS

- **Algorithms and Data Structures** (C++, JavaScript)
- **Software Engineering** (Java, Git, Makefile, Bash)
- **Machine Learning & Computer Vision** (Python)
- **Web Development** (HTML, CSS, JavaScript)
- **Advanced Computer Architecture** (Arm, MIPS)
- **High Level Programming** (F#)
- **Digital Electronics** (Verilog, FPGA)

WORK EXPERIENCE

IMPERIAL COLLEGE LONDON

TEACHING ASSISTANT FOR COMPUTER

ARCHITECTURE AND SOFTWARE ENGINEERING

Oct 2019 - Mar 2020 | London

- Assisted in ARM Assembly exercises for classes of up to 60 students and C++ programming exercises for classes of up to 30 students.
- Helped with understanding of concepts within Computer Architecture and Algorithms and Data Structures in one-to-one and group scenarios.
- Invigilated in class tests and helped the lecturer ensure exam conditions are maintained.

TARICH TUITION LTD

MANAGER FOR GCSE SCIENCE

Aug 2017 - Current | London

- Led over 250+ Hours of 1-to-1 and group tutoring for GCSE and A-Level Students.
- Manage all GCSE Science Tutors and provide them with handouts, lesson plans and assessments to evaluate and boost student knowledge.
- Participate in training classes to improve tutoring practices and teach effective tutoring techniques.

TECHNICAL PROJECTS

C COMPILER AND TRANSLATOR

- Built a C to MIPS compiler and C to Python translator using Flex, Bison and C++.
- Developed a Lexer, Parser and Code Generator using Object Oriented Programming.
- Implemented variable declaration, loops, function calling, recursion and conditionals.

MIPS CPU SIMULATOR

- Built a MIPS CPU simulator which accurately executed MIPS-1 big-endian binaries and a testbench to test the simulator.
- Developed the simulator using C++.
- Developed testbench and test cases using MIPS and Bash.
- Automated the building, testing and running of the simulator and testbench using Makefile.

MACHINE LEARNING

- Developed a Multi-Layer Neural Network library from scratch which included implementing forward and backward propagation algorithms. Implemented Linear, ReLU and Sigmoid activation functions as well as functions for data preprocessing, training and evaluation.
- Built a Pruned Decision Tree using Python that locates a position of a device within a building using signal strengths from different WIFI emitters.

NETWORK TOPOLOGY

- Implemented a network topology with various routing protocols which included OSPF, RIPv2, and EIGRP.
- Use of switches to implement VLANs and switch-port security.
- The topology contained 9 Routers, 12 Switches, 18 Hosts and 2 Servers.

AWARDS

2018	1 st /60	A-Level Chemistry Award
2018	Local	Jack Petchey Award
2017	1 st /25	A-Level Electronics Award

LANGUAGES

Fluent in: English • Urdu • Kashmiri • Hindi