NAYAN KAD

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EDUCATION

Imperial College London **2018 – 2022**
3rd Year MEng Electronic and Information Engineering (Computer Engineering)
Modules: Operations Research, Advanced Computer Architecture, Introduction to Machine Learning, Real-Time Digital Signal Processing, Embedded Systems, Computer Vision, Network and Web Security
Awards: Maurice Hancock Award (1st Year)

Lampton School Academy **2010 – 2017**
A Levels: Maths (A*), Physics (A*), Chemistry (A), AS Further Maths (B)
GCSE's: 11A*/A grades

Further Qualifications:
- Gold Crest Award – Managed a team to solve a real-world engineering problem for BP
- Gold Industrial Cadet Award – Awarded as part of completion of the Engineering Education Scheme

SKILLS & ACTIVITIES

Technical: C++ (Proficient), Python (Moderate), MATLAB (Moderate), Java (Moderate), bash (moderate), SQL (Moderate), ARM Assembly (Moderate), MIPS Assembly (Moderate), Verilog (Moderate), HTML/CSS (Moderate)
Languages: English (Fluent)
General Skills: Organised approach to problems, effective as an individual and within a team, inclination to think critically
Activities: Silver Duke of Edinburgh, Silver UKMT Maths Challenge, British Chemistry Olympiad, Engineering Education Scheme
Volunteering: NFL usher, TaeKwonDo coaching

RELEVANT WORK EXPERIENCE

Deloitte Technology Consulting Virtual Internship **Sep 2020**
- Completed practical task modules in Client Discovery, Designing a Business Case, Considerations for Mobilisation, Defining the project approach, Conducting a market scan Further analysis & solution presentation, Cloud Computing, Cloud Feasibility and Readiness Assessment

JP Morgan Software Engineering Virtual Internship **Aug 2020**
- Completed practical task modules in Establishing Financial Data Feeds, Frontend Web Development and Data Visualisation

BP Software Engineering Internship **Jul 2016**
- Developed software for technical data handling using VBA, awarded prize for best technical solution

TECHNICAL PROJECTS

Machine Learning
- Developed Multi-Layer Neural Network including functions for activation, data preprocessing, training, evaluation, and forward and backward propagation algorithms
- Generated a Decision Tree using Python and performed evaluation and pruning – designed to locate the position of a device using signal strength data from multiple Wi-Fi emitters

C Compiler & C to Python Translator
- Built a C to MIPS compiler and C to Python translator making use of Flex, Bison, and C++ to create a Lexer, Parser and Code Generator respectively
- Implemented variable declarations, function calls, loops, recursion and conditionals with careful consideration of edge cases and discrepancies between C and the target languages.

MIPS CPU Simulator
- Created a MIPS CPU simulator designed to execute MIPS-1 big-endian binaries using C++
- Generated an extensive testbench using MIPS instructions and utilized bash to create an automated script for testing