KEYAN SADEGHI NAMAGHI

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EDUCATION AND QUALIFICATIONS

2013 - Present: **Imperial College London, Electrical and Electronic Engineering MEng (2:1)**
- <u>Fourth Year</u>: Created a rollator capable of gait detection through machine learning and computer vision.

- <u>Third Year</u>: Developed an IoT Tea brewer capable of making tea to the requested strength via an SQL database via an MQTT server. Programmed a real-time audio noise removal program via spectral subtraction

- <u>Second year</u>: Designed and produced an echo synthesiser for a FPGA using Verilog. Designed and constructed a high gain broadband amplifier. Developed an Assembly algorithm for computation of 64-bit multiplication on a 16-bit processor

- <u>First year</u>: Group Project – System/circuit designer for group project involving a line following robot Coursework - Developed and compared the efficiencies of several Sudoku solving algorithms

2007 - 2013: **Ysgol Friars School, Bangor**
- <u>A levels</u>: Mathematics (A*), Physics (A), Chemistry (A), Further Mathematics (B)
- <u>GCSEs</u>: 5A* 4A 3B including Mathematics and English

WORK AND VOLUNTEERING EXPERIENCE

Aug 2017 – Oct 2017: **Engineering Consultant, *Climate Edge, London***
- Continued development of third year group project by training with actual data collected
- Worked closely with the start-up, planning implementation for the project on the next prototype

Oct 2016 – Mar 2017: **Programming Tutor, *Code Club, Brompton Library***
- Volunteering to mentor and teach children up to 11 years old programming
- Involved in simplifying complex programming concepts and theories for young children to understand

2011 - 2013: **Trained Peer Mentor, *Ysgol Friars School, Bangor***
- Taught mathematics to children with severe learning disabilities, improving their performance and confidence
- Helped run extracurricular rugby training for younger pupils aiding communication and leadership skills

TECHNICAL PROJECTS

Oct 2017 - Jun 2018: **Final Year Individual Project – Virtual Reality Graph Visualisation**
- Explored using an Oculus Rift to visualise and interact with graphs comprised of vertices and edges
- Built a graph building and manipulating demo using Unity3D with data from online repositories which was then adapted into a game to highlight the advantages and disadvantages of the project
- Researched and implemented several measures to prevent virtual reality sickness

Apr 2017 - Jun 2017: **Third Year University Group Project – Climate Edge Application and Sensor**
- Developed an Android application to receive data from a microprocessor via Bluetooth then log, graphically plot and send the data to an SQL database
- Designed and manufactured a cheap non-mechanical rain gauge utilizing piezoelectric sensors

Oct 2015 - May 2016: **Second Year University Group Project – ReceiptBook**
- Worked in a team as communications system designer to create a system which transmits and stores customer shopping receipts in a digital form factor via near-field communication
- Developed a system to transmit files from a point of sale machine to an Android device wirelessly

SKILLS AND ACHIEVEMENTS

Programming Skills: Experience in C#, C++ and Python, moderate experience in Android development (Java), MATLAB, SQL, Prolog, Assembly and Verilog HDL.
Software: Unity3D, Altera Quartus II for FPGA design, WEBENCH Filter Designer, LabVIEW, Altium CircuitMaker.
Languages: English (fluent), Welsh (basic proficiency).
Achievements: IET Diamond Jubilee Scholarship 2013, Airbus UK Award 2013, LAMDA grade 7 public speaking.
Activities and Societies: Dog walking, hiking, camping, hobbyist electronic and programming projects.

REFERENCES AVAILABLE UPON REQUEST