ABHINATH KUMAR

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Education

Sept 2016 - June 2020: **MEng Computer Science, University College London (UCL), UK**
- Minor Elective: Modern Applications of Engineering Mathematics

Sept 2014 - June 2016: **A-levels, The British School Al Khubairat (BSAK), Abu Dhabi, United Arab Emirates**
- Computer Science (A*), Maths (A), Physics (A), Geography (A)

Sept 2013 - June 2014: **GCSEs, The British School Al Khubairat, Abu Dhabi, United Arab Emirates**
- 8 A*/A s

Experiences/Projects

20th Nov - 24th April 2019: **Research on SpaceX's internet satellite constellation 'Starlink' - UCL**
- Accurately reverse engineered SpaceX FCC filings to understand how a constellation of 12,000 low Earth orbit satellites will create a global low latency and high-bandwidth broadband internet system
- Built a packet-level discrete-event simulator to analyse network behaviour using **C++** under the supervision of Prof Mark Handley
- Produced a group **scientific paper** on the first-hand accounts of potential packet-reordering across different global network routes

1st July - 21st September 2018 : **IBM iX - Technology Consultant in Audi digital team**
- Worked in a team as a **Javascript** full stack developer on a project for Audi UK
- Developed a scalable and real-time dashboard of critical data from the site **audi.co.uk** in **React & Node.Js**
- Integrated Google Analytics and Optimizely X to a prototype demoed to the Director of Audi

1st October - 1st June 2018: **Great Ormond Street Hospital/ Nippon Telegraph and Telephone (NTT)**
- Utilised NTT's smart t-shirt to create a live web-dashboard that displays patient-vitals using **PHP/ JavaScript**
- Integrated Arduino-based sensors into t-shirt to allow physicians to conduct thorough sleep apnoea studies
- Presented an elevator pitch at the British Medical Association (BMA) House to several companies/clients
- Awarded opportunity to showcase idea at **British Computer Society** headquarters

1 st March - 24th April 2017: **Mindwave Ventures/South London NHS Trust**
- Developed a Microsoft Hololens augmented reality application of the *Morris Water Maze Experiment*
- Designed to test and aid the cognitive and spatial awareness of patients who suffer from mental disorders
- Involved in front-end development using **C#** on Unity game engine and Visual Studio

1st January - 1st June 2016: **Universal Gravitation Helper, BSAK**
- Developed a **Java** application that enables A-level Physics teachers to teach the topic of 'Universal Gravitation'
- Allowed students to learn concepts, diagrams and undergo a series of tests based on the topic
- Supporting documentation (300+ pages) including analysis/design, user, maintenance, and testing

Technical Skills

Mobile -Android Java development
-React native for hybrid apps
Web -React with Redux & Node.Js/Django/PHP/SQL/MongoDB
-Development Operations: Docker, Jenkins, Selenium
ML -Python with scikit-learn/Tensorflow
Cloud -Awaiting examination for **AWS Certified Solution Architect Associate**, Azure
Other -Arduino microcontrollers/Actuators using C

Project Management Skills

Methodologies -Agile/Scrum / Waterfall
Tools -Jira/Confluence

Positions of Responsibility

June 2019 - July 2019: **Team leader of 'Waitless Technology Group' for Airbus FYI Competition**
- Reached the second round of IoT category (top 50 out of 270 teams) and top 10 technology pitches

June 2018 - July 2018: **Team leader of 'LED Crossroads Group' for UCL 'How to change the World' showcase**
- Developed a concept of a dynamic road system that respond to situations in real-time

Achievements/Extra Curricular

- 2018 Technology Innovation Award for Smart Cities at 'How to change the World' showcase
- Aerospace enthusiast and avid follower of rocket launches
- 2015 & 2016 Student of the year for Computer Science
- Bronze, Silver, and Gold Duke of Edinburgh Awards
- Grade 6 Drum kit/former member of BSAK Jazz ensemble, Cricket, Boulder Climbing