

ALEXANDRE ABOU CHAHINE

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EDUCATION

Imperial College London

MEng in Electrical & Electronic Engineering

· Achieved First Class Honors (73%). Top tier of the cohort

· Relevant Classes: Machine Learning (81%), Pattern Recognition (79%), Computer Vision (81%), Topics in Large Dimensional Data Processing (83%), Probabilities and Statistics (89%) and Algorithm and Data Structure (86%)

October 2014 - June 2018

London, United Kingdom

Institut de la Tour

French Baccalaureate Scientific Stream with Further Mathematics

· Graduated with the highest distinction. Result: 18.3/20

September 2007 - July 2014

Paris, France

PROFESSIONAL EXPERIENCE

Imperial College's Electrical & Electronic Department

Undergraduate Teaching Assistant (UTA) in Mathematics

· Assisted 60 first and second year students in weekly tutorial groups & marking their courseworks

· Selected for the position due to excellent academic record in mathematics (top 10% of the class)

October 2017 - March 2018

London, United Kingdom

Imperial College's High-Energy Physics Group

Undergraduate Research Opportunity Program (UROP)

· Project: low-power data acquisition electronics for radiation detection

· Programmed a microcontroller firmware (C) to forward incoming data to a PC via USB for real time operations

· Developed a Windows application (Win32, C++) to collect information and communicate with the microcontroller

July 2017 - September 2017

London, United Kingdom

Sword Group

Technical Consultant Intern in Web Development

· Project: Worked to improve a web application used by hospitals to help doctors treat patients suffering from cancer

· Operated Front-end animations using JavaScript and collected data on internal servers through Java requests

August 2016

Beirut, Lebanon

High school tutoring

Tutor in Physics & Mathematics

· Mentored and tutored a student one-on-one, helping him double his average and reach his university offer

October 2015 - June 2017

London, United Kingdom

ENGINEERING PROJECTS

Individual research project on Human Detection and Tracking

· Assessed the performance of multiple algorithms and model architectures to achieve human detection in complex environments: multiple humans, occlusions and under different lighting conditions

· Successfully implemented a human detector mostly based on Histogram of Oriented Gradients theory, using the MATLAB environment

· Applied detection on successive frames with a Kalman Filter algorithm to follow human motions in videos

Third year project sponsored by IBM Hursley Labs

· Led a team of 8 students for 3 months, designing and creating of a Cognitive Coffee Machine

· Encoded a microcontroller to operate the mechanical hardware according to users' requests

· Connected the hardware to the IBM Node-Red application - responsible for the complete information flow of the project

Second year self proposed project

· Technical leader in a team of 7 students prototyping a connected Thermostat for a year long project

· Responsible for the successful development of the IoT (Internet of Things) device

TECHNICAL & LANGUAGE SKILLS

Programming Languages

Python, MATLAB, HTML/CSS, C++, Assembler ARM

Tools

Linux, Microsoft Office (Excel, Word, PowerPoint), LaTeX

Languages

French (Native), English (Fluent), Spanish (Intermediate) & Arabic (Conversational)

ADDITIONAL ACTIVITIES AND INTERESTS

Additional Classes

Managing Organization (71%), Entrepreneurship (76%), Corporate Finance (75%)

Design-Led Innovation and Enterprise (73%) & Biomedical and Electronics (75%)

Hobbies

Art, History, Football and Traveling (Europe, North America and the Middle East)

Societies

Founder and president of Imperial College Lebanese society, member of the IC football club