ALEXANDRE ABOU CHAHINE

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EDUCATION

Institut Polytechnique de Paris *September 2020 -*
Master of Computer Science. Track: Data and Artificial Intelligence *Paris, France*
· Joint degree between Ecole Polytechnique and Telecom Paris
· Relevant Classes: Advanced ML & Autonomous Agents, Logic & Knowledge representation, Databases, Architectures for Big Data, Text Mining & NLP, GPU Programming, Parallel and Distributed Algorithms, Emergence in Complex Systems

Imperial College London *October 2014 - July 2018*
Master of Engineering in Electrical & Electronic Engineering *London, United Kingdom*
· Achieved First Class Honors (73%). Top tier of the cohort
· Relevant Classes: Machine Learning (81%), Pattern Recognition (79%), Computer Vision (81%), Image Processing (83%), Computer Architecture (69%), Algorithm & Data Structures (86%), Optimisation (80%) and Probability & Statistics (89%)

Institut de la Tour *September 2007 - July 2014*
French Baccalaureate Scientific Stream with Further Mathematics *Paris, France*
· Graduated with the highest distinction. Result: 18.3/20

PROFESSIONAL EXPERIENCE

Investec *October 2019 - Today*
Graduate Analytics Programme *London, United Kingdom*
· Assess and validate statistical models produced by the Credit Risk modelling team. These models aim to calculate and forecast the risk of default for a given counter-party, as well as the loss incurred as a result of a default event
· Technical analysis completed in Python (testing the goodness-of-fit, detecting outliers, building challenger methods...)

Singulier *March 2019 - August 2019*
Data Science Consultant *Paris, France*
· Took part in two projects for leading french companies: increasing revenues for an e-commerce pure-player and shaping the strategy for a market entry in the US
· Managed data science operations in projects (data mining, customers analysis and clustering, sales and price forecast...)

Imperial College's Electrical & Electronic Department *October 2017 - December 2017*
Undergraduate Teaching Assistant (UTA) in Mathematics *London, United Kingdom*
· 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)

Imperial College's High-Energy Physics Group *July 2017 - September 2017*
Undergraduate Research Opportunity Program (UROP) *London, United Kingdom*
· 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 desktop application (C++) to collect information and communicate with the microcontroller

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 focusing on feature engineering involving Histogram of Oriented Gradients
· 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

TECHNICAL & LANGUAGE SKILLS

Programming Languages	Python, C++, HTML/CSS/JavaScript, Matlab, R, SQL, Assembler ARM
Tools	Linux, GIT, LaTeX
Languages	French (Native), English (Fluent), Spanish (Intermediate) & Arabic (Conversational)

ADDITIONAL ACTIVITIES AND INTERESTS

Online Specialisations	Applied Data Science with Python (5 courses) - University of Michigan (2019)
	Deep Learning Specialisation (5 courses) - deeplearning.ai (2019)
Hobbies	Art (music and photography), History, Football and Running (multiple half-marathons)
Association	Co-founder and President of the Imperial College Lebanese Society (2015-2018)