Alexandre BERKOVIC

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Nationalities: French, Belgian

EDUCATION

IMPERIAL COLLEGE, London – Design Engineering (First class honours – Dean's list Year 2) 2018-2022
Courses: Robotics, Mechanics, Computing, Electronics, Mathematics, Design, Fluids & Thermo, Data Science.

LYCÉE FRANÇAIS JM, Brussels – French Baccalaureat with European option (18.78/20) 2006-2018
Courses: Mathematics, Physics, Chemistry, Biology, Philosophy, French, History/Geography, English, Spanish.

WORK EXPERIENCE

AMAZON, London, United-Kingdom June-Sept 2020
Data Analyst in the SWA (Shipping With Amazon) team. 3 months

- Created an **NLP** algorithm to classify shippers' issue tickets into different categories. Worked with Python, APIs and automation tools to make the end product available as a dashboard.
- Created a computer vision algorithm with **OpenCV** to read multiple barcodes at once for shipper productivity to be increased in sort centers
- Worked on a high-level project for which I ran cost simulations by extracting information from Amazon Redshift (**SQL**) and by using internal tools (SWADE).

NETGEM, Paris, France June-July 2017
Intern in the R&D division (Software and Hardware). 1.5 months

- Observed the different steps in making the software and hardware of a television decoder
- Tested and verified the functionality of several features for a new incoming software update

SKILLS

Software Development: Skilled (advanced level) in **Python, MATLAB, Arduino (C++), SQL & Linux.** Satisfactory understanding of **Perl**, HTML & JSON.

Software prototyping: Proficient in CAD, Finite Element Analysis with **Solidworks, Fusion 360 & Blender.**

Data science (IBM certified): experience with ML/DL with Pandas, TensorFlow, Keras, Apache Spark, Pytorch, DL4J.

Physical prototyping: Electronic circuitry, Arduino, 3D printing, metal and wood-working, laser cutting, foam modeling

Languages: French: native language, **English**: fluent, C2+, **Spanish**: B2+/C1

PROJECTS

Robo-Colorizmo: This controllable robotic arm can pick up different items when actioned. Activating the 'colour sorting mode' makes it automatically pick up an object, detect its colour and sort it in an area accordingly. Testing was done using coloured cubes which got stacked one on top of the other. It was built by using servos, an Arduino board and coded in C++.

Gizmosity: This 200g and iPhone sized robot created on Solidworks is 4500 times lighter than Curiosity and could cover 21.9km in just 10h40. It's jumping mechanism allows it to lunge over 1.8m horizontally and 17cm vertically on Mars.

Dancer: This small two-wheeled robot has the ability to dance at the beat of a given music whilst balancing itself. It's program is coded in Pythan and the robot can be controlled remotely as well through Adafruit's phone app.

Cyclone: This project's aim was to create a safe, inclusive and high-end hair curler for visually impaired users which uses air flow and heat to style the user's hair. Technology was verified through FEA (air flow simulation), design created on Solidworks, renders executed on Keyshot but final the product was not tested due to COVID limitations.

EXTRA CURRICULAR ACTIVITIES & INTERESTS

Sports: President of Imperial's **Boxing** club, **Tennis**: participation in different tournaments, **Ski**: minor distinctions
Societies: **Robotics** society, **Blockchain** society with Imperial, UCL & LSE and **Entrepreneurship** society
Caritative events: Played the guitar for a charity concert to aid children in the Middle East (1800 tickets sold)
Art: creator & manager of an account on art which analyses works of modern and contemporary artists (Quotidiart)