LENIN JHOAN CRUZ QUISHPE

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EDUCATION

The University of Manchester **Expect: Sept. 2017 – June 2021**

BEng (Hons) Mechatronics Engineering with Industrial Experience (WIE)

First year score:	First class (78/100)
- Relevant courses:	Microcontroller Engineering (77%), Digital Systems Design (64%), Electronics Project (77%), Mathematics (84%), C programming (83%), Measurements and Analytical Software (75%), Electronic Circuit design (82%), Energy, Transport and Conversion (83%)
Second year score:	First class (75/100)
- Relevant courses:	Control Systems I (83%), Electronic Circuit Design II (77%), Embedded Systems Project (76%), Applied Mechanics & Industrial Robotics (66%), Machines, Drives and Power Electronics (75%), Microcontroller Engineering II (68%), Engineering Management (78%)

INTO Manchester Centre **Sept. 2016 – June 2017**

A-levels: Physics (A*), Further Maths (A*), Maths (A*); (NCUK points: 168/168)

MOOC (Online Education)

Machine Learning by University of Washington (Coursera) **July 2020 - Ongoing**
Data Science by John Hopkins University (Coursera) **June 2020 - Ongoing**

PROJECTS

Personal Website: **July 2020 – Aug. 2020**

A showcase of my work as a Mechatronic Engineering Student. I used the **React** library for **JavaScript** to build the Front-end and **NodeJS** with **ExpressJS** to build a Contact Page to send emails to my personal email address

Autonomous Buggy: **Sept. 2018 – April 2019**

Line follower Robot buggy built from scratch, developed in **C++** on a **STM32 microcontroller** board. With the aid of wheel encoders and reflective sensors and based on a **PID control algorithm** for position and speed, the robot navigates autonomously around a track.

Main activities: Hardware design (**CAD**), Sensor Characterization and Sensor Data Analysis, Position keeping control algorithm implementation in Software.

MBED Mini project: **Nov. 2018 – Dec. 2018**

User-friendly alarm clock device. It makes use of a NUCLEO-F401RE board and a MBED application shield as the mainstays. It has been developed in **C++** language using the Mbed library and the online compiler

EXPERIENCE

Engineering Intern at AVL Powertrain UK Ltd (Placement year) **July 2019 – June 2020**

- Assist with automotive software development activities for a self-driving vehicle:
  - Design and implementation of a **Simulink** Model for short-range object detection with Ultrasonic sensors.
  - Sensor (GPS, Ultrasonic, RADAR, Mobileye, IMU, Polysync) Data Analysis with **MATLAB**.
  - SW Tool development for Software Testing automation with **MATLAB** and **MS Word VBA**.
  - SW component testing and reporting with **Simulink** Test Manager and Report Generator.
  - GUI development for data visualization with **Python** and the PyQt5 library.

Manchester Calling Campaign at Manchester International office **March 2018 – June 2018**

- Provided an informal conversation to University of Manchester offer holders around the world via phone call to share campus news, give reminders about future events and solve any concerns regarding their program and studying and living in Manchester

EXTRACURRICULARS

Treasurer at the University of Manchester Ecuadorean Society **Aug. 2020 – Ongoing**

- Financial planning and budgeting of the Society for the 2020-2021 academic year

Visitor Engagement Volunteer at Museum of Science and Industry **Oct. 2018 – April 2019**

- Be the first point of contact to ensure all the visitors' requirements and queries are solved.
- Engaged with visitors, guided them through the Electricity exhibition and provided information about future activities, events, services and the retail offer.

Peer Assisted Study Session (PASS) Leader **Sept. 2018 – April 2019**

- Supported a group of 20 first-year students to adapt to University life by sharing personal student experiences, offering advice and directing them to relevant services and support.
- Planed and run weekly study sessions with a flexible agenda to solve the students' academic problems though discussion forums and guided questioning.

Spanish language tutor at the University of Manchester Linguistic Society **Sept. 2018 – April 2019**

- Run weekly language lessons for a group of seven students, including presentations and learning activities.
- Helped the attendees to acquire basic Spanish skills in a way they can survive a day in a Hispanic country.

HARD SKILLS

Programming Languages:
Intermediate: Python, C, C++
Familiar: VHDL, C#, Assembly

Scripting Languages:
Intermediate: MATLAB, Python, Word VBA
Familiar: JavaScript, R.

Graphical programming:
Simulink, LabVIEW

CAD Software:
SOLIDWORKS, Altium CAD

Software Tools:
NI Multisim, Xilinx ISE, CANalyzer,
Microsoft Office Packages

Microncontroller Units:
PIC18F8722, NUCLEO-F401RE, Arduino-Uno.

Laboratory instruments:
NI ELVIS II board, NI myDaq, Oscilloscope,
Function generator, Multimeter

Project Management tools:
Gantt Project, Integrity PTC, Microsoft Planner.

Languages:
Spanish (Native), English (Fluent),
French (Basic).

AWARDS

SENESCYT, Ecuadorian Government (2015)

- Ranked in the top 100 best scores around the country in the National Exam for admission to Higher Education in Ecuador (ENES).

SENESCYT, Ecuadorian Government (2016)

- Full scholarship worth $250,000 for higher education studies at The University of Manchester for a period of five years, awarded for outstanding performance in the Ecuadorian National Exam taken in 2015.

References available upon request