LUCAS ANDERSON

MECHATRONICS ENGINEER

Innovative engineer with proven experience in both autonomous and team projects seeking employment in a dynamic engineering team.

CONTACT ME

lucasganderson@gmail.com

+1 347 728 0934

Lincoln Place, Brooklyn, New York, 11217

linkedin.com/in/lucas-anderson-649a32157

Dual Citizen: French/American

VOLUNTEER & PERSONAL WORK

3D printing technician (volunteer work)

HANDPRINTS E-NABLE PROSTHETICS - GLASGOW SEPTEMBER 2020 TO MAY 2021

- Provided technical support, CAD modeling and custom 3D printing.

Design and manufacture of a custom-made grow tent (personal work)

GLASGOW, SCOTLAND - SEPTEMBER 2020 TO JUNE 2021 DURING LOCKDOWN

- Designed and built a tent for growing fresh herbs (mint, basil, coriander).
- Installed humidity and temperature sensors as well as air extraction system to provide the best environment for the plants.
- Programmed Arduino microcontroller connected to LED screen to display real-time temperature and humidity readings.

HOBBIES

Sports

- Basketball: University of Glasgow men's 1st team; National division
- Hiking, skiing, biking, and bivouacking

SKILLS

Languages

- English: Fluent
- French: Fluent
- Spanish: Basic working knowledge
- Arabic: Started to learn

Software and Hardware

- CAD: Solidworks/Fusion 360
- ECAD: Kicad/Altium/Cadence/Eagle
- PSIM/PSpice/
- C/C++/Python
- Matlab/Simulink
- Portunus (Electromagnetics software)
- Oscilloscope, Logic Analyzer, Power Supply, LCR Meter, Soldering Iron, Omicron CMC 356

Soft Skills

- Multicultural Awareness: Highly adaptable due to personal, educational, and international background.

WORK EXPERIENCE

Engineering intern in R&D labs

SCHNEIDER ELECTRIC - EYBENS, FRANCE - JUNE TO DECEMBER 2021

- Six-month internship developing an electromagnetic energy harvesting system for use in an autonomous and wireless power meter device
- Chose, tested, and implemented AC/DC and DC/DC topologies for more efficient power conversion
- Designed and tested final PCB on Kicad
- Presented results for peer review
- Conducted multiphysics simulations and tests combining electronics and magnetics (electromagnetics)

Engineering intern at DANTHD - Fiber optics division

DÉPARTEMENT DE L'ISERE - GRENOBLE, FRANCE - JUNE TO AUGUST 2019

- Three-month internship in the division of Digital Development for the Isère Department.
- Worked with a team of engineers to design and install a fiber optics network throughout the Department (office and field experience).

EDUCATION AND QUALIFICATIONS

University of Glasgow (member of Russell Group) - Master's in Mechatronics - James Watt school of engineering

GRADUATED IN JUNE 2022 WITH A FIRST-CLASS MASTER'S DEGREE (EQUIVALENT TO A GPA OF 3.8)

- Built a retrofittable electric add-on kit to convert a standard bicycle into an e-bike.

My role was to:
- Design and implement a battery management system for the 36V lithium-ion battery used.
- Design and implement a battery monitoring system to measure battery charge level.
- Design the power electronics circuitry connecting the battery to the motor controller and subsequent DC brushless motor.
- Design and manufacture the battery management PCB
- Design and manufacture the power electronics and battery monitoring PCB

- Classes taken during the course of my degree included: Digital Control, Digital Signal Processing, Robotics, Analogue Electronics, Embedded Processors, Power Electronics, Fluid Mechanics, Programming.

University of British Columbia - Vancouver - Canada

YEAR ABROAD IN MECHATRONICS - 2019 TO 2020

- Classes taken included: Automatic Control, Mechanical Vibrations, Power Electronics, Measurements and Instrumentation, Electromechanics, Entrepreneurship

Cité Scolaire Internationale de Grenoble - France

FRENCH INTERANTIONAL BACCALAUREAT - 2014 TO 2017