ROBERT POTRA

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EDUCATION

University of Western Ontario, London, ON *Sep. 2016 — Present*
- Bachelor of Engineering Science, Mechatronic Systems Engineering
- Dean's Honour List, 2016 - Present
- Certificate of Leadership and Innovation

WORK EXPERIENCE

Visiting Scholar Engineering Intern, Macquarie University, Sydney, NSW *May 2019 - Aug. 2020*

- Mechanical design of shoulder simulator to be used for cadaver studies
- Control system design and implementation using kinematic and force feedback
- Design of software to be used for cadaver shoulder simulator

NSERC Undergraduate Student Research Award (USRA), *May-Aug. 2018*
Roth McFarlane Hand and Upper Limb Centre, London, ON *May-Aug. 2017*

- Scanned and 3D printed splints for patients
- Worked with surgical fellows to complete cadaver studies of the shoulder and elbow
- Completed statistical analyses for cadaveric studies (ANOVA and inter/intra-rater reliability)
- Created 3D models of cadaver specimens

EXTRACURRICULAR ACTIVITIES

Western Formula Racing (FSAE), London, ON *Sep. 2016 - Present*
- Low voltage subsystem lead for the 2020-2021 season
- Final year project of electrified powertrain with 500 V battery, DTI HV-500 inverter, and Emrax 228 Motor
- Designed the Grounded Low Voltage System for the 2020-2021 season
- Management of electrical recruits
- Wiring harness design and manufacturing
- Implemented CAN communication

PROJECTS

LED Cube
- Used Serial Peripheral Interface (SPI) with shift registers
- For more information visit https://www.youtube.com/watch?v=gPpLKZm38aA

SKILLS

Proficient
- Matlab, Arduino
- SolidWorks (Certified SOLIDWORKS Associate)
- Microsoft Visio, Excel, Powerpoint, and Word
- 3D printing (FDM and SLA)
- Artec Studio, Geomagic Wrap
- 3D Scanning (Artec Space Spider)
- Speak fluent Romanian and manageable in French and Spanish

Some Knowledge
- Python, C++
- LabVIEW
- Autodesk EAGLE
- SPSS
- Materialise Mimics
- Rhino3D
- Simulink