# **Boris Hadzalic**

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### **SUMMARY**

A bilingual Biomedical and Electrical Engineering graduate with 3 years of leadership and project experience. Specialized in facilitating effective communication among team members, organizing project timeframes, and ensuring deliverables are met in a timely manner. Seeking an engineering project management role that fosters professional development and provides experience working on large-scale systems.

### **EDUCATION**

# Bachelor of Engineering, Biomedical and Electrical, Co-op

*September 2018 – June 2023* 

Carleton University, Department of Systems and Computer Engineering, Ottawa ON

• Graduated with High Distinction, GPA 3.50 / 4.00, Dean's Honour List 2019 – 2023

### ADDITIONAL

# **Security Clearances**

• Reliability and Secret (Level II)

# Languages

• English, French and Serbo-Croatian

# **Projects**

- **Electronic System Automated Testing**
- Biomedical Prototype Device Design/Assembly
- Microcontroller Software Development
- Sensor System Design and Circuit Simulating

#### PROFESSIONAL EXPERIENCE

### **Product Safety Laboratory Test Engineering Student**

September 2021 – September 2022

Health Canada – Product Safety Laboratory, Ottawa ON

**Role:** Worked as part of the Electrical Engineering Section to develop, execute, and automate the testing of electronic consumer devices according to UL and IEC standards and test guidelines.

- Led segments of the developmental test plan and test case execution on projects involving Li-ion powered electronic consumer devices, ensuring efficient test execution and timely summary of test results.
- Oversaw the automation of the testing of consumer electronic devices in LabVIEW, enabling efficient remote temperature cycle testing from devices on the WLAN.
- Automated the discharging process of button-activated electronic consumer device samples by programming software onto test equipment development boards and microcontrollers.
- Led weekly lab network administration and cybersecurity initiatives on all operating systems, registered devices, lab equipment, routers, and APs registered on the lab network.
- Updated requirements and specifications on prior test methodologies to adapt them to suit current test equipment while ensuring adherence to UL standard guidelines and best practices.
- Coordinated back-and-forth negotiations with 3rd party service providers to finalize service terms and conditions; provided information to colleagues and senior engineers to aid with quote generation.
- Participated in requirement reviews and design verification testing, collaborating on test process improvements, and communicating test progression to senior engineers and colleagues.

# **Senior Lifeguard & Senior Aquatics Instructor**

May 2019 - June 2023

Carleton University Pool, Ottawa ON

- Operated efficiently in a team-oriented manner with fellow lifeguards to treat and prevent injuries of varying severity and to communicate pool policies and COVID safety guidelines to inquiring patrons.
- Handled issues raised by patrons and students surrounding the facility and teaching guidelines.
- Filed test sheets and first aid reports in a timely and organized manner.
- Produced individualized long and short-term swimmer lesson plans for each student, ensuring effective personalized swim progression.

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# PROFESSIONAL EXPERIENCE (CONTINUED)

- Executed administrative activities including documenting patron counts and first aid supply inventory management.
- Scheduled meetings with students and their guardians to discuss progress, weaknesses, and practice / correctional exercises.

### ACADEMIC PROJECT EXPERIENCE

# **Lead Systems Designer & Software Developer**

September 2022 – April 2023

Carleton University – Haptic Stylus Pen Capstone Project, Ottawa, ON

- Led a multi-disciplinary team of fellow students to develop an updated haptic stylus pen prototype device and surgical training environment to simulate scalpel incisions on patients in VR.
- Planned project progression and submission of deliverables by developing project timeframes, organizing project milestones via a Gantt chart, scheduling weekly team meetings and delegating workload between team members.
- Improved prototype device tracking by implementing a C++ console application that tracked device position and orientation via a webcam.
- Handled interfacing the prototype device with the virtual models within the simulated surgical training environment.
- Organized R&D initiatives ultimately resulting in the development of an updated prototype device.
- Produced project proposals, technical documentation / drawings, and final reports within a timely manner.

# **EMG Sensor Project Coordinator & Lead Designer**

September 2020 – November 2020

Carleton University – Electromyography Course Project, Ottawa ON

- Led the design and implementation of an Electromyograph (EMG) Sensor responsible for detecting and digitizing an EMG input signal.
- Authored reports to outline the behaviour and responses of all individual circuits within the EMG sensor and the sensor's effectiveness.
- Improved EMG sensor performance by deriving mathematical expressions for optimal component values.
- Strengthened EMG sensor performance by implementing a high pass filter circuit to eliminate low frequency noise and powerline interference.
- Analyzed the time response for all damped cases to understand which scenarios could lead to capacitor overcharge and potential circuit damage.

#### SKILLS & TECHNICAL EXPERTISE

MS Office Suite | MS Excel | Project Management | Quantitative Analysis | C++ Programming | MS Visual Studio | Electronic Systems Design & Assembly | Microcontrollers | Test Execution & Automation | Lab Skills | Sourcing & Inventory Management | Negotiating with 3rd Party Service Providers & Suppliers | Collaborating Effectively with Multi-**Disciplinary Teams**