JONAH BELMAN

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**Canadian student with ability to work in the United States**

I am an engineering student with extensive practical experience in robotics and the automotive industry. I love working with my hands and creating things. I am a hard worker and can quickly learn new skills when put to the task.

**EDUCATION**

*Candidate for BASc, Mechatronics Engineering* / University of Waterloo 09/2019 – 06/2024

**PROFESSIONAL EXPERIENCE**

*Team Captain and Powertrain Lead* / UW Baja SAE Team, Waterloo, ON 01/2021 – Present

* Leading the design and construction of the powertrain for a Baja vehicle, set to compete, for the first time, in 2023
* Researched and designed components for transmission, transfer case, and differentials for a 4WD off-roading vehicle
* Responsible for managing five sub-teams and overseeing team operation

*Electrical Hardware Designer* / Genesis 3 Engineering, Kitchener, ON 05/2021 – 08/2021

* Performed electrical safety reviews of industrial equipment using Sistema to ensure safety standards were upheld
* Designed wiring diagrams of industrial machinery using Eplan while maintaining proper electrical engineering practices
* Modified over 2500 safety circuits and related schematics to comply with safety standards, such as ISO 13849

*Robotics Engineering Co-op* / Top Hat Robotics, Kitchener, ON 09/2020 – 12/2020

* Modelled, assembled, and performed rigorous testing for semi-autonomous sidewalk robots used for snow and ice removal
* Redesigned battery storage department leading to a 300% increase in robot’s battery life
* Managed electrical components and power distribution in several robots
* Soldered and wired components to custom PCBs

*Owner* / Toronto Custom Woodworking, Toronto, ON 05/2019 – 12/2020

* Designed and constructed one-of-a-kind modern furniture pieces for clients
* Communicated with clients to fully understand their custom orders and provide project timeline updates
* Managed social media account (@tocustomwoodworking on Instagram) to reach out to future clients

*Engineering Co-op* / ORION, Toronto, ON 01/2020 – 05/2020

* Organized and installed fiber-optic servers and switches into province-wide server rooms
* Managed company assets and inventory, saving the engineering team 3 hours/week, on average
* Programmed several automation processes on Customer Relation Management (CRM) software

**PERSONAL PROJECTS AND AWARDS**

*Electric Jet Boat*  07/2021 – Present

* Designed a fully electric sport boat to provide sustainable alternative to gas-powered watercrafts
* Modelled vehicle and jet drive propulsion on SolidWorks and other CAD software
* Composed electrical schematics and safety calculations on EPLAN and Sistema respectively

*1st Place – Weizmann International Physics Competition* 09/2018 – 04/2019

* Designed and constructed a safe with locking mechanisms based on physics principles (thermodynamics, aerodynamics)
* Programmed and wired electronic components of the safe
* Awarded 1st place in worldwide competition of 144 teams

**TECHNICAL SKILLS**

* Adept at 2D & 3D design with SolidWorks and AutoCad using GD&T
* Well-versed in product design and prototyping with Arduino, Raspberry Pi, and 3D printing
* Highly experienced in circuit/PCB design and soldering
* Proficient in Java, C++, SQL, HTML, and CSS
* Hands-on experience with woodworking and machining