JONAH BELMAN

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I am an engineering student with extensive practical experience in product design, robotics, automation, and the automotive industry. I love working with my hands and creating. 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**

*Craftsmanship Engineering Intern* / Tesla, Fremont, CA 08/2022 – Present

* Develop feasible execution targets and ensure they are integrated into products, from conception through to launch
* Influence vehicle design through constructive alternative solutions with engineers throughout the organization
* Design and quantize perceived quality of Cybertruck and S3XY lineup through sight, touch, sound, and scent (not taste)

*Team Captain*/ 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

*Automation & R&D Mechatronics Co-op* / Rani Therapeutics, San Jose, CA 01/2022 – 04/2022

* Conceptualized and modelled automated manufacturing process machines on SolidWorks
* Created prototypes and final release models for various machine components with additive manufacturing and machining
* Programmed automation of electronic components in C++ to integrate into existing processes in the production chain

*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* / Swap 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

**PERSONAL PROJECTS AND AWARDS**

*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 machining and woodworking