

# David Jin

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## EDUCATION

**Ryerson University**

**Toronto, Ontario**

**B.Eng. - Mechanical Engineering with a minor in Computer Science**

2018-2024

- Entrance Scholarship - \$2000/year

## SKILLS

**Mechanical Design:** SolidWorks, CAD, System Design

**Manufacturing & Assembly:** DFM, DFA, knowledge of machining processes

**Programming & Automation:** Python, C/C++, Javascript, Bash/PowerShell, Lua

## WORK & LEADERSHIP EXPERIENCE

**Robotics/Programming Instructor**

**Markham, Ontario**

*CSAA – Canadian STEM and AI Academy*

*Current – 6 months*

- Created and taught custom robotics curricula tailored for students aged 10-18, integrating **Python, C, C++, Scratch, Lua** (Roblox programming) with a focus on data structures and algorithms and competitive coding.
- Developed custom educational website with **HTML, CSS, and JavaScript** to enhance student learning, incorporating coding exercises that support hands-on experience with robotics, algorithms, and game design.
- Prepared students with instructional teams to compete in the Canadian Computing Competition, leading to a **25% higher placement** average in the senior student competition.

**Mechanical Design Intern**

**Markham, Ontario**

*Hiker Enterprises*

*Summer of 2022 – 8 months*

- Designed and optimized grommeting equipment and mechanical tools using SolidWorks and AutoCAD.
- Partnered with the sales team to customize solutions for key clients and organized marketing events such as expo presentations, increasing client acquisition by 15%.
- Worked closely with suppliers to source high-quality materials, improving product reliability, reducing costs.
- Applied DFM principles to streamline manufacturing, cutting production lead times by 10% and driving faster delivery to customers.

## PROJECTS

**Full-Stack Web Trading App**

Spring of 2023

- Designed and coded a user-friendly stock trading app using **HTML, CSS, and JavaScript**.
- Integrated real-time stock data for users via **Polygon's APIs** and **WebSocket**.
- Built a secure and scalable back end with **Node.js, Express.js, and MongoDB** to host and protect user data.

**Automated Jar Opener Capstone Project**

2022-2023

- Led the project coordination and design for an 8-month long Automatic Jar Opener project designed to reduce physical load for users with hand-mobility impairments.
- Collaborated with cross-functional team members, developed mechanical components with **SolidWorks** and 3D printed with polypropylene, control systems and functioning UI with **SolidWorks, Arduino, and Python**.
- Achieved a high-performing Automatic Jar Opener system, validated through rigorous **FEA testing**.

**Organic Home**

**Toronto, Ontario**

*Lead of Lighting System*

*Fall of 2021*

- Collaborated in a 4-month long home system group design project with a focus on implementing sustainable, ergonomic design practices for a flat located in the GTA.
- Teamed with 4 teammates in situation scanning, concept ideation, and concept integration for the lighting system of the home.
- Delegated and completed weekly deliverables, progress reports, and presentations.
- Showcased the final flat design receiving recognition from industry experts and the highest grade that year.