# Jun Young Kim

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## **EDUCATION AND SKILLS**

#### University of Waterloo Faculty of Engineering

Waterloo, ON

1A Bachelor of Applied Science in Electrical Engineering, Honors, Co-op

**Expected Graduation 2028** 

• Relevant Coursework: Fundamentals of Programming | Classical Mechanics | Linear Algebra | Project Studio | Engineering Profession and Practice | Communication in The Engineering Profession

- Software: Autodesk Inventor, Python, C++, SOLIDWORKS, Illustrator, Premier Pro, AutoCAD, Revit, Arduino IDE, Altium
- **Technical:** 3D Design, 3D Printing, Breadboard Circuits, Soldering

#### LEADERSHIP AND WORK EXPERIENCE

Team 9263 - ALD Lions Oakville, ON

Design Team Lead/Founder

September 2022 - June 2023

- Pioneered the creation of a FIRST Robotics Team, demonstrating an ability to identify opportunities and take the initiative to turn ideas into reality.
- Spearheaded a multidisciplinary team of engineers as design team lead, facilitating team meetings to distribute the development of aspects of a complex robot and worked with sub teams to create the best design.
- Learned industry-grade programs such as SOLIDWORKS to design functional drivetrains, chassis and more.

# 540 Golden Hawks Squadron

Oakville, ON

Level 4 Instructor/Flight Sergeant

September 2021 - December 2022

- Led and mentored a team of high ranking cadets, fostering their growth, discipline, teamwork, and leadership.
- Developed and delivered engaging lessons to cadets, promoting a passion for aviation and aerospace technology.
- Assisted in squadron logistics, including event planning and coordination, demonstrating administrative and organizational skill in a complex operational environment.

## Second Cup Oakville

Oakville, ON

Cashier/Customer Service Representative/Barista

August 2021 - August 2023

- Developed communication skills to build rapport with customers, and promoted company values.
- Managed cash flow operations, totalling \$500 \$1,000 per shift.
- Memorized over 45 menu items to serve 200+ customers per day.

#### **PROJECTS**

# • Muscle Controlled Prosthetic //C++, SOLIDWORKS, 3D Printing, Arduino IDE, Revit

- Leveraged 75 months expertise in C++ programming and circuitry design to create an efficient control system
- Worked with emerging technology such as electromyography sensors to capture muscle movement which enabled an intuitive control interface for the prosthetic hand.
- Harnessed 2 years of SOLIDWORKS experience skills via a mentor to create a functional 3D design for the prosthetic that advanced 25% efficiency per iteration, creating an intuitive design for 3D printing.

## • DeTENSor //C++, Circuitry Design, Arduino IDE

- Built to ease uncontrolled muscle contractions for a first year McMaster engineering client with dystonia as a part of the 2019 McMaster I-STEM challenge.
- Worked with complex electrical devices such as a TENS machine in relation with an electromyography controller to detect muscle contractions then act accordingly with the TENS machine, easing pains in immediate succession.

# • Automatic Seed Planter //C++, 3D Printing, 3D Design, Arduino IDE

- Built a comprehensive control system with C++ for ensuring precise and consistent seed planting that optimised seed distribution and spacing for efficient crop growth.
- Integrated electrical components, including servos, motors, and a microcontroller, to automate the most efficient seed planting process.

## **AWARDS & CERTIFICATIONS**

- Rookie All Star Award, Highest Rookie Seed | ONT District Western University Engineering Event 2023
- Rookie Inspiration Award | FIRST Ontario Provincial Championship SCIENCE Division
- 10 Course Excellence Awards | 2019-2023
- Top 3 I-STEM Project Award I-STEM Expo | 2022
- Best I-STEM Entrepreneurship Project Through Student Vote | 2022