

ARUSHI GOEL

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SKILLS

- **Mechanical design:** AutoCAD, SolidWorks, 3D printing, GD&T, Adobe Photoshop, Figma, ISO 9001
- **Programming:** Object oriented programming in C++, JavaScript, Python, HTML, IoT, VSCode, GitHub
- **Microcontrollers/Hardware:** PCB Boards, Arduino and Micro:bit

PROJECTS

IoT Automated Pet Feeder

Aug 2023 – Present

- Enabled remote pet feeding using an app with NodeMCU ESP8266, 3D-printing 12 parts in SolidWorks
- Integrated NTP servers with an IoT device for precise feeding scheduling and one-touch feeding initiation

TreasureBot

Oct 2022 – Dec 2022

- Assembled a LEGO EV3 robot to sift through sand to locate and sort treasure 4 multi-coloured pieces
- Programmed a path and searching algorithm in ROBOT-C for the pieces to be found in under 90 seconds

Triple-Axis Robotic Arm

Oct 2022 – Nov 2022

MECHANICAL DESIGN AND OPERATOR

- Built a robotic arm to simulate a medical robot capable of transporting bone fragments 3-10 cm long
- Achieved precise movement and lifting capabilities by using a combination of servos and gear trains

EXPERIENCE

S&C Electric, Toronto

May 2023 – Sept 2023

ASSISTANT QA ENGINEER

- Led an automated package inspection project using Dori AI, a deep learning video analytics platform that detects missing parts from 39 kits to reduce production errors by 4 weekly
- Utilized a CMM to inspect 3 parts daily with precision, ensuring compliance with GD&T drawings
- Inspected, soldered, and wired PCP boards for peak performance, proving comprehension of their operations
- Analyzed Oracle data using Excel to provide product quality reports for 200+ high-voltage switches weekly

Code Ninjas, Vaughan

Jan 2021 – Aug 2022

CODE INSTRUCTOR

- Created 20+ Arduino and Micro:bit projects to increase student engagement and productivity
- Conducted weekly group instruction on game development using Roblox and Scratch to over 50 students
- Enhanced programming proficiency across four proficiency levels in one-on-one sessions with eight students

Engineering Science Quest, Catalyst Waterloo

Jul 2022 – Aug 2022

- Designed a maze controlled by a joystick in Arduino that tilted using 4 micro servos
- Adapted a solution to the lack of accessibility of literature in Indigenous communities and received recognition for best idea and presentation

Edsby, Vaughan

Jan 2021 – June 2021

ASSISTANT SOFTWARE QA ENGINEER

- Wrote and reviewed 10+ bug reports daily using Jira to assist software engineers in debugging
- Formatted CSV files using Excel for use in 3 testing servers for a cloud-based educational networking tool
- Assessed advancement of testing servers and presented findings at monthly company-wide testing sessions

EDUCATION

The University of Waterloo, Mechatronics Engineering

Waterloo, Ontario

Bachelor of Applied Sciences

Anticipated 2027

- Recipient of the University of Waterloo President's Scholarship (\$2,000)