

JUSTIN DESSUREAULT

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PROFILE

- Electrical engineering student specializing in robotics, automation, and embedded systems. Hands-on experience with ESP32, IoT integration, SolidWorks and 3D printing. Skilled in combining electronics, coding, and CAD design to deliver innovative automation solutions.

TECHNICAL SKILLS

- Software: C++, HTML/CSS, JavaScript, Node.js, Git/GitHub
- Design: SolidWorks (CAD), Cura (slicing), 3D printing, mechanical design
- Hardware: ESP32, Arduino, sensors, servos, pumps, motor drivers, LCDs
- Specialities: IoT systems, automation, embedded programming, robotics

PERSONAL PROJECTS

- **Automated Plant Watering System** – Built IoT device with ESP32, capacitive soil sensors, servo motor, water pump, and LCD. Developed custom local/remote web interface for monitoring and control.
- **Robotic Arm** – Fully designed in SolidWorks with 3D-printed components; integrated multi-servo system with inverse kinematics and pan/tilt camera capable of tracking 5×5 ArUco markers.
- **Portfolio Website** – Designed and deployed personal portfolio site using HTML, CSS, JavaScript, GitHub pages, and Cloudflare tunnels. (stellaz.org)

EDUCATION

Bachelor of Engineering (Automation & Robotics) Algonquin College, Ottawa	2024 - Present
Electrical Engineering Technician Diploma Algonquin College, Ottawa <ul style="list-style-type: none">• Dean's Honor list	2019 - 2022
Social Science Diploma Heritage College, 325, Boulevard de la Cite-des-Jeunes, Gatineau <ul style="list-style-type: none">• Faculty of Social Sciences• Business Administration	2016 - 2019
High School Diploma Grande-Riviere High School, 100 Rue Broad, Gatineau	2010 - 2016

WORK EXPERIENCE

Personal Care Aide/Health Care Aide

Quebec Government, Gatineau

Jun 2023 – Dec 2024

- Supervise medication taking
- Prepare meals and assist with feeding as needed
- Provided support for clothing and hygiene care
- Accompany individuals on outings

Customer Service Representative

Couche-Tard, Aylmer

Jan 2021 - Jun 2023

- Trained new employees
- Authorized and monitored gas pumps
- Restocked shelves and rotate products
- Performed transactions and balanced cash registers
- Provided customers with prompt service

Planning and Performance Assistant

Immigration, Refugees and Citizenship Canada, Ottawa

Jul 2018 - Dec 2018

- Developed interactive reports
- Developed instructional guides for using specific programs
- Created dashboards
- Analyzed data and statistics
- Designed graphic data
- Developed visualization products

Administrative Assistant

Immigration, Refugees and Citizenship Canada, Ottawa

Jul 2017 - Dec 2017

- Performed administrative tasks
- Received phone calls
- Classified and archived files