JOHNSON'S RESUME

Haoran Ji

Job objective:
Automation Engineer

- **Age:** 20
- **Place of Origin:** Toronto
- **Education:** Undergraduate studies in progress
- **Gender:** Male
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Education

- **2023.09.01 - (Expected) 2028.04.28, attend in McMaster University**
- **Program:** Mechatronics Engineering COOP
- **Core courses:** Control theory; embedded system; E&M; classical, Newtonian, analytical mechanics; digital system design; robotics; operating system.
- **Honor:** GPA 11.7/12 (equivalent to 4.0 in 4.0 GPA system) within top 1% in McMaster Engineering. Awarded in
  McMaster Engineering Entrance Scholarship and Outstanding Student Schol arship in Course in year 1 and 2.

Working

- **2024.01-2024.06** **Location:** Undergraduate Research Assistant in ECE department, McMaster

Position: data analysis (Tutor: Dr. Jun Chen)

Participated in research on image deblurring for RAW format images using machine learning methodologies.

- **2025.04.27-2025.08.27** **Location:** ABB Shanghai, B&R Branch

Position: Automation Engineer Internship

1. Independent Development of a Six-Axis Robotic Arm Using Automation Studio (Based on SceneView) and Corresponding Human-Machine Interface (HMI) Based on mappView.

2. LLM-based Q&A Assistant Developed with Dify Platform and Python for RAG-Based Architecture: Designed a Q&A Framework, Curated the Database, and Implemented Nonlinear Fitting Algorithms

3. A tool developed based on Python and Dify for real-time monitoring of OPCUA variables and generating fitting curves and charts.

Skills

Skills: Proficient in Control Theory (Classical and Modern), Keil-Based Microcontroller Development, MATLAB and Simulink, CAD, and Industry-Standard Commercial Software (Automation Studio). Use C/C++ and Python to do the software development.

Soft skills: Skilled in delivering presentations, proficient in using GitHub, Markdown, Excel, and PowerPoint, with the ability to create structured and standardized documentation.

Projects

- STM32-based Automatic Guided Vehicle (AGV) Subway System Developed with Keil studio.
- Genetic Programming-Based Rocket Control System (in C++).