

# Ace Ha

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## PROFESSIONAL EXPERIENCE

### ZABER TECHNOLOGIES

#### Production / Assembly Technician

Joined the production team to assemble precision motion products, including linear/rotary actuators and XYZ Cartesian.

- Assembled and tested precision linear/rotary actuators and XYZ Cartesian motion systems.
- Performed troubleshooting/rework and documented build issues to meet quality requirements.

### TM-ENGINEERING LTD

#### Mechatronics Designer

Joined the R&D to design, build, and validate servo-driven automation, working on mechanical design, integration, testing.

- Designed mechanical parts/assemblies for prototype automation machines and supported rapid iterations.

### FOOD PROCESS SOLUTIONS CORP

#### Robot Programmer

Joined as one of the robotics programmers in the field controls division to integrate ABB robots into large-scale food automation systems, directly impacting production efficiency and uptime.

- Programmed and integrated ABB industrial robots with PLCs and HMI for automated food processing systems.
- Conducted motion control, path planning, and troubleshooting to improve robot reliability in production.

### SANCTUARY AI

#### Robotics Technician

Hired as a Robotics Technician during a key growth phase to support development of humanoid hand/actuator systems.

Worked hands-on in assembly, calibration, and testing to improve robotic reliability.

- Conducted precision assembly of robotic actuators and hands to ensure optimal dexterity, movement, and durability.
- Performed electrical assembly, including wiring, soldering, and integration of sensors and control electronics.
- Operated actuator testing systems and calibrated different sizes of motors to meet strict performance specifications.
- Diagnosed, troubleshoot, and repaired robotic hand/actuator systems, minimizing downtime, improving reliability.
- Collaborated with cross-functional engineering teams to prototype, validate, and improve robotic hand designs.

### TOYOTA

#### Automotive Technician

Da Nang, Vietnam

### PHAN CHAU TRINH MEDIA

#### Photographer

May 2023 – Aug 2023

### EDUCATION

DA NANG, VIETNAM

### BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY (BCIT)

#### Diploma in Mechatronics and Robotics Engineering

BURNABY, BC

Sep 2022 – May 2024

- Focus: Robotics Assembly, Robot Arm Programming, Control Systems, PCB & Sensor Design.
- Awards: Bronze Medal – Electronics, BC Skills Competition (SMD soldering, PCB design, sensor interface).

## TECHNICAL PROJECTS

**Cartesian Robot (2025–now):** Designed and assembled XYZ Cartesian with linear guides and belt-driven axes.

**Tensile Test Machine (BCIT, 2024):** Built using TMS320 & Raspberry Pi; designed HMI for data collection & analysis.

**PLC Elevator Control (BCIT, 2024):** Programmed elevator system with Allen Bradley PLCs, and HMI.

**Motor Drive & Voltage Regulator (BCIT, 2023):** Designed H-Bridge motor drive with a braking system.

**ABB Robot Gripper (BCIT, 2022):** Modeled & prototyped gripper in SolidWorks, 3D printed for testing.

**Delta Robot (2023–now):** Integrated STM32, Raspberry Pi, and OpenCV vision for product classification.

## SKILLS & INTERESTS

- Technical Skills:** Robotic assembly & integration (hands, actuators, grippers); Fine soldering & micro-wiring; Harness fabrication; Actuator calibration; PLCs (Allen-Bradley); Robotics systems (ABB, FANUC, Delta, SCARA); Programming (Python, C, MATLAB); CAD/EDA (SolidWorks, OnShape, RobotStudio, Altium, KiCad); Embedded systems (STM32, MSP430, Raspberry Pi, ESP32); Protocols (I<sup>2</sup>C, UART, SPI, RS485, RS232); Fabrication (3D printing, CNC, laser cutting, welding).
- Interests:** Guitar & piano, soccer, photography, hiking.