

Yu Shen

📍 Location: Chatham, ON, Canada
☎ Phone: (226) 998 9889
✉ Email: shenyu121212@gmail.com
Web: <https://vushen.ca>

PROFILE

Skilled Electromechanical Technician specializing in **HMI** and **PLC** programming (**Allen-Bradley/Siemens**), **Robotics** (**FANUC**-certified), with 2 years in system integration, troubleshooting, and on-site support, seeking roles in **Controls Engineer**, **PLC/HMI Programmer**, **Robotics Technician**, and **Systems Integrator**.

SKILL

- Proficient in designing and optimizing **PLC**-based control systems using **Rockwell** and **Siemens**, with familiarity in **TwinCAT** and **CODESYS**. Skilled in **PLC** programming using **Ladder Logic**, **FBD**, and **ST**. Experienced in **Motion Control**, **Servo/VFD** applications, and **safety PLC** programming. Experienced in implementing traditional and modern control algorithms including **PID**, **Feedforward**, **Lead-Lag Compensator**, **LQR**, **MPC**, with system modeling and simulation experience using **MATLAB/Simulink**.
- Expert in **FANUC** robotics programming and commissioning, with knowledge of **ABB** and **KUKA**. Exposure to integrating **vision systems** and **laser technologies**, with awareness of **ROS/ROS2** frameworks for industrial automation. Familiar with **LabVIEW** for test automation and data acquisition systems.
- Experienced in **control panel design**, including developing electrical schematics with **EPLAN**, selecting appropriate components (PLCs, drives, circuit protection devices), and creating panel layouts. Familiar with power distribution design and wiring optimization, while adhering to common industry **IEC** standards.
- Competent in developing **HMI** applications (**Ignition**, **FactoryTalk**, **WinCC**) and utilizing industrial communication protocols (**Ethernet/IP**, **Modbus**, **Profibus**, **EtherCAT**).
- Foundational programming skills (**C/C++**, **Python** and **SQL**) in a **Linux** environment for industrial automation.
- Analytical **problem-solver** with demonstrated ability to troubleshoot complex automation challenges. Excels in cross-functional collaboration. Strong technical **communicator** with experience creating clear **documentation** and delivering **client training**.

WORK EXPERIENCE

ROBOTICS WELD TECHNICIAN

Martinrea International Inc., Ridgeway ON

05/2025 - Present

- Operating and monitoring **FANUC** robotic welding systems (spot welding, stud/nut welding, **MIG/TIG** welding) on automotive component production lines, adjusting weld schedules and controller parameters to maintain consistent weld quality. Assisting in servo gun calibration and robot path refinement.
- Conducting daily troubleshooting on **Robotic** cells and **PLC** to quickly resolve downtime issues. Identifying and fixing root causes of production stoppages (robot errors, PLC faults, or sensor failures) and working with maintenance team to solve equipment issues.
- Delivering production support by following safety procedures and participating in shift audits, collaborating with engineers on calibration tasks.

ENGINEERING CO-OP STUDENT

The EPCM Group Global, Oakville ON

09/2024 - 12/2024

- Performed design and documentation work by designing laser scanner enclosures in **SolidWorks** with **GD&T**-compliant drawings, reducing fabrication errors; Optimized **P&ID** diagrams in **AutoCAD** by standardizing symbols and layers.
- Provided control systems support through assisting in **PLC** programming (**Studio 5000**) and **HMI** developing (**FactoryTalk View**) for Mineral Processing Automation System (Milling & Press), enhancing system functionality and user interaction.; Implemented structured tag naming conventions that reduced troubleshooting time.
- Designed electrical schematics using **EPLAN** for improved system documentation and troubleshooting efficiency.
- Conducted equipment operations including performing robotic cell disassembly/assembly with motor-gearbox alignment; Streamlined **control panel wiring** with coded labels.

CONTROL SYSTEMS ENGINEER ASSOCIATE

Shanghai Junli Automation Co., Ltd.

06/2020 - 06/2022

- Executed **industrial control systems** implementation by commissioning automation projects for manufacturing clients, designing control cabinets and **programming PLC logic (Rockwell, Siemens S7-300/1200)** with compliant Schematics design (**EPLAN**). Developed alarm management systems with prioritized fault classification and improved code reuse through modular standards.
- Assisted with robotic automation projects, including Palletizing System Integration for food & beverage production, designing **FANUC** robotics cells with **vision guidance** for high-speed product handling; **TIG** Welding Cell for Streetlight Fabrication, implementing seam tracking and torch position control to ensure weld precision and reduce rework.
- Supported technical training for clients and prepared project handover documentation. Organized and archived project documentation according to management requirements.

PROJECT MANAGER (UNDERGRADUATE STUDENT PROJECT)

Shanghai Polytechnic University

06/2019 - 12/2019

- Project: **Siemens S7-200 PLC** Boiler Temperature Control System and **MCGS** Configuration Simulation Design.
- Achieved "Great Accomplishment" award in National College Students' Academic Innovation Program.
- **Ladder logic** programming for precise temperature and pressure control. Clear wiring diagrams and optimized **I/O** allocation support maintenance and cost-efficiency. An **HMI** displays key parameters for easy monitoring. The system improves combustion efficiency and offers advanced functionality.

EDUCATION

ELECTROMECHANICAL ENGINEERING TECHNICIAN

Fanshawe College, London ON

09/2023 - 09/2025

- **Major Coursework:** Practical Electronics, Welding, Wiring for Automation, Engineering Graphics, Project Management, PLC & Automation (A+), CNC Machining, Electrical.

B.E. IN AUTOMATION

Shanghai Polytechnic University, China

09/2016 - 06/2020

- **Major Coursework:** Control Systems Engineering, Modern Control Systems, Intelligent Control Systems, Electric Machines and Drives, Motion Control Systems, Process Control Engineering, Industrial Measurement & Instrumentation, Industrial Robotics, PLC and Industrial Automation, Microcontroller Systems Design, Embedded Systems Engineering, Industrial Power Systems, Automated Manufacturing Systems

VOLUNTEERISM

BIKE MECHANIC

Squeaky Wheel Bike, London, ON

09/2023 - 04/2024

- Proficient with hand tools (wrenches, hex keys, screwdrivers) for bicycle repairs
- Complete repairs reliably using proper tools (100% customer satisfaction)
- Utilized oral and written communication skills to create visual repair guides for common issues