

Ngoc Pham

🏠 Austin, TX, USA | ✉ ngoc.pham.nm@gmail.com | 📞 346-452-0434 | 🌐 ngocpham1994x.github.io

SKILLS

INDUSTRIAL AUTOMATION

- **DCS:** DeltaV Hardware, DeltaV v12.3.1/v13.3.1/v15, DeltaV Virtualization, DeltaV Mobile, AMS
- **PLC:** Allen-Bradley CompactLogix, Schneider Modicon, Siemens SIMATIC, Beckhoff
- **Instrumentation:** Rosemount pressure/flow/level, Micro Motion flow/density/viscosity, Fisher control valves, Toshiba/ABB VFDs
- **Servers/Workstations:** VRTX, Dell T620/R740XL Servers, Dell T3600/T5820X Workstations
- **Operating Systems:** Linux (Ubuntu 18.04/20.04/22.04), Windows Server 2008/2012/2016, Windows 7/10

PROGRAMMING/SOFTWARE

- Emerson DeltaV Explorer
- Allen-Bradley RSLogix Ladder logic
- Siemens TIA Portal
- AutoCAD, MS Access, MS Office
- Python, C/C++, C#, Java, SQL, Visual Basic, HTML/CSS/Javascript
- Robot Operating System (ROS)
- Docker, Git, IntelliJ, VSCode, VS

CERTIFICATES

7409	DeltaV Implementation I
7018	DeltaV Hardware
7027	DeltaV Administration
7029	DeltaV Virtualization
7601	Mimic I
7602	Mimic II
IV2022	Rosemount Service
MMT066	Micro Motion Internal I
Apprenticeship	Certified Inst. Technician
Online course	Responsive Web Design

EDUCATION

UNIVERSITY OF MANITOBA

B.Sc. IN COMPUTER ENGINEERING
Expected Graduation: May 2023
Dean's Honor List
CGPA: 4.1 / 4.5 | MGPA: 4.1 / 4.5

RED RIVER COLLEGE

DIPLOMA IN INSTRUMENTATION
ENGINEERING TECHNOLOGY
Graduation: Dec 2015
Honor Graduate
CGPA: 4.4 / 4.5

EXPERIENCE

TESLA | CONTROLS ENGINEER

May 2023 – Present | Austin, TX

- Design and engineer complex electrical and controls system architectures for Cathode program.
- Conduct comprehensive loop checks of 1000+ IOs across diverse platforms including DeltaV DCS, Beckhoff PLC, Siemens PLC.
- Facilitate communication between PLC systems and DCS via industrial protocols such as ModbusTCP and PROFINET.
- Develop and integrate DCS Control modules with complicated interlock and permissive conditions.
- Conduct Factory Acceptance Test (FAT) to validate vendor equipment compliance with Tesla standards and specifications.
- Program C# application with UI to automate DCS Control module instantiation, enhancing operational efficiency.
- Participate in critical engineering activities including HAZOP, Alarm Rationalization, Cause and Effect Matrix studies.

MANITOBA HYDRO | ENGINEERING STUDENT

May 2021 – Apr 2023 | Winnipeg, MB

- Developed SQL database application to automate the engineering processes to collect time series data of 200+ power stations.
- Composed and designed PowerBI reports, technical documentations and procedures of Electrical Load Forecast.
- Simulated contingency scenarios, and documented analysis results for electrical load studies.

LAKESIDE PROCESS CONTROLS | PROJECT ENGINEERING

Oct 2016 – Sep 2019 | Winnipeg, MB

- Experienced in startups, commissioning, integration, tuning with DeltaV DCS, PROVOX - DeltaV migration.
- Interfaced DeltaV DCS (via VIM/EIOC) to third-party products via Modbus serial, Modbus TCP/IP protocol, EtherNet/IP.
- Conducted Hardware/Software FAT at various industrial plants: pulp and paper, pharmaceutical, food and beverage.
- Built, configured 70+ DeltaV servers and workstations including virtual environment (Hyper-V, VMware).
- Supervised electricians for hardware installation.
- Troubleshoot, verified software configuration for automation systems, and documented loop-check results.
- Performed annual Preventative Maintenance, hardware flash upgrades, system updates, hotfixes and Symantec/McAfee virus definitions.

TOLKO INDUSTRIES | INSTRUMENTATION TECHNOLOGIST

Jan 2016 – Oct 2016 | The Pas, MB

- Maintained complex industrial automation systems (DeltaV DCS and Modicon Quantum).
- Responsible for instrumentation queries and proposals.
- Designed loop diagrams, inspected instruments, supervised electrical installation for commissioning and startups.
- Verified AutoCAD drawings of automation system architectures, fiber optic networks, junction boxes, process loops, P&IDs and VFD schematics.
- Designed electrical schematics and instrument installation details.
- Diagnosed, performed instrument calibration and routine maintenance services.