

Ngoc Pham

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SKILLS

PROGRAMMING/SOFTWARE

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

INDUSTRIAL AUTOMATION

- **Operating Systems:** Linux (Ubuntu 18.04/20.04/22.04), Windows Server 2008/2012/2016, Windows 7/10
- **Servers/Workstations:** VRTX, Dell T620/R740XL Servers, Dell T3600/T5820X Workstations
- **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

CERTIFICATES

- 2020 Responsive Web Design
- 2019 Certified Inst. Technician
- 2019 DeltaV Virtualization, Hardware
- 2017 DeltaV Implementation, Admin
- 2017 Rosemount/Micro Motion Service

EDUCATION

UNIVERSITY OF MANITOBA

B.Sc. IN COMPUTER ENGINEERING
Graduation: May 2023
Dean's Honor List
CGPA: 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

- Program C# application with UI to automate DCS Control module instantiation, improving engineering efficiency.
- Create intuitive and easy-to-use DeltaV graphical interfaces (HMI) to enhance operator productivity and workflow.
- Conduct comprehensive loop checks of 1000+ IOs across diverse platforms including DeltaV DCS, Beckhoff PLC, Siemens PLC.
- Facilitate communication between PLC and DCS systems via industrial protocols such as ModbusTCP and PROFINET.
- Design and engineer complex electrical and controls system architectures for Cathode program: electrical single line diagram, control network.
- 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.
- 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.
- Programmed, maintained SQL database connection and architecture.
- Composed and designed PowerBI reports, technical documentations and procedures of Electrical Load Forecast.
- Developed Python scripts to automate contingency file generation.
- Simulated contingency scenarios, and documented analysis results for electrical load studies.
- Developed UI to systematically allocate zones to power buses in Power System Simulator (PSS/E).

LAKESIDE PROCESS CONTROLS | PROJECT ENGINEERING

Oct 2016 – Sep 2019 | Winnipeg, MB

- Experienced in startups, commissioning, integration, tuning with DeltaV DCS, PROVOX - DeltaV migration.
- 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 and electrical schematics, supervised electrical installation for instrument commissioning and startups.
- Verified AutoCAD drawings of automation system architectures, fiber optic networks, junction boxes, process loops, P&IDs and VFD schematics.
- Diagnosed, performed instrument calibration and routine maintenance services.