

Samaneh Heshmatzadeh, MSEE, EIT

Electrical Engineer | Software Developer

Coquitlam, BC

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PROFILE

Samaneh has over 2+ years of experience in the Electrical and Control Systems Engineering field. She has skills and experience in designing, implementing, and developing control system software. Furthermore, she holds a master's degree in electrical engineering, control systems option, and an EIT designation with EGBC. She is currently getting the Applied Software Development certificate at BCIT. Samaneh has a vast knowledge of various programming languages and object-oriented design. She is detail-oriented, able to perform tasks with minimal instruction, and a fast learner who desires to learn and develop continuously.

HIGHLIGHTS AND SKILLS

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|--------------------------------|----------------------------|--------------------------|
| ✓ Control software development | ✓ Canadian Electrical Code | ✓ Object Oriented design |
| ✓ Control systems design | ✓ Modelling and Simulation | ✓ Python/ Java |
| ✓ Advanced control | ✓ Git/ GitHub | ✓ C |
| ✓ PLC programming | ✓ MySQL | ✓ Matlab/Simulink |
| ✓ Instrumentation | ✓ Microsoft Office | ✓ AutoCAD |

RELATED WORK EXPERIENCE

Electrical Design Engineer

WGW Engineering Ltd., Burnaby, BC, May 2022 – February 2023

- Design power and lighting layouts, power distribution system, and single line diagrams using AutoCAD
- Perform load calculation, panel schedule, and mechanical schedule for all types of buildings
- Verify projects' compliance with the Canadian Electrical Code and engineering standards
- Coordinate with the project team to ensure drawing integrity and on-time completeness of projects

Controls Engineer

Kara Saba, Iran, November 2015 – January 2018

- Designed a parking management system to count vacant parking spots
- Programmed PLC-based controller, conducted functional tests, and determined response accuracy
- Designed a basic HMI to communicate the vacant spots
- Prepared design documentation within the time schedule, and completed the project on time

Research Assistant

Khaje Nasir Toosi University of Technology, Iran, September 2006 – January 2009

- Trouble-shoot laboratory pH plant from a hardware and software perspective
- Developed the pH plant controls system including design, implementation, and verification
- Verified and validated software using simulations
- Modeled and simulated the pH process, and predicted the behavior of the laboratory pH plant
- Designed and simulated a self-tuning regulator for the pH process with Matlab/Simulink
- Attended weekly meetings with the project team, and analyzed project development and results

Electrical Engineering Co-op

Tehran Oil Refinery, Iran, July 2005 – August 2005

- Analyzed instrumentation, and verified their application in the oil and gas industry
- Read P&ID diagrams of different sections, and interpreted their electrical and mechanical details

CERTIFICATE

Applied Software Development Certificate

BCIT, Vancouver, BC, January 2022 - Present

Electrical Engineer in Training (EIT) Certificate

EGBC, Vancouver, BC, August 2022 – Present

EDUCATION AND TRAINING

Master of Science in Energy Management

New York Institute of Technology (NYIT), Vancouver, BC, June 2020

International Student English Program

BCIT, Vancouver, BC, September 2018, April 2019

Instrumentation and PLC Programming

Novin Parsian Higher Education Institute, Iran, September 2014 – October 2015

- Analyzed measuring instrumentations, process control loops, control valves, and their applications
- Programmed LOG-S7-200 PLC

Master of Science in Electrical Engineering, Control Systems

Khaje Nasir Toosi University of Technology, Iran, June 2008