Dean David Menkis

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Education

British Columbia Institute of Technology — Burnaby, BC
Electrical and Computer Engineering Technology — ***Average: 92%*** | *Sep. 2024 – Present*

- Designed & assembled a variable DC power supply using SolidWorks and KiCad.
- Programmed hierarchical logic circuits on PLDs using AHDL through Quartus II.

Electrical Joint Training Committee — Port Coquitlam, BC
Entry Level Trades Program — ***Grade: 86%*** | *Sep. 2023 – Dec. 2023*

- Designed code-compliant wiring diagrams for residential apartments.
- Installed and wired electrical components including panels, breakers, heaters, and lighting fixtures.
- Applied CEC 2024 Electrical Code (CSA C22.1:24) standards to residential and commercial projects.

Experience

British Columbia Institute of Technology — Vancouver, BC
Research Assistant: Climate Agency to Action — *July 2025 – Present*

- Developed a classification taxonomy for BCIT program pathways based on Bohenberger's Sustainable Employment model.
- Coordinated a joint UBC-BCIT research survey, increasing student engagement through targeted outreach.

Mott Electric — Port Coquitlam, BC
Apprentice Electrician — *Jan. 2024 – Mar. 2024*

- Retrofitted downtown high-rises with fiber optic infrastructure, receptacles, and lighting systems.
- Troubleshot and rectified optical and ethernet cable installation faults.

Leadership & Volunteering

BCIT Robotics Club — Burnaby, BC
President — *July 2025 – Present*

- Direct club operations and project initiatives, serving as the official spokesperson of the club.
- Work jointly with the IEEE and ESS club presidents to plan and host workshops and seasonal events.
- Re-established governance by drafting a constitution and implementing inventory tracking for club resources.

Projects

BCIT Robotics Club - Robotic Dog | *Fusion 360, C++, JavaScript* — *Apr. 2025 – Present*

- Designed and 3D printed a 16:1 planetary gearbox actuator to minimize backlash and maximize durability.
- Worked in collaboration to develop inverse kinematics algorithms in C++ for quadrupedal motion.

Arduino RC Car | *Fusion 360, C++, JavaScript* — *Jan. 2025 – Mar. 2025*

- Engineered an RC car chassis with print-in-place universal ball joints and featuring a Tank & Ackermann steering systems.
- Implemented controls via a custom web app communicating directly with the Arduino R4 Wifi.

Technical Skills

Programming Languages: C/C++, Verilog, AHDL, Python, Java
Software & Tools: Fusion 360, Inventor, SolidWorks, Quartus II, KiCad, Arduino, Git
Core Competencies: PCB Design, Circuit Analysis, PLC Programming (Ladder Logic), 3D Modeling