

Doyoung An

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Education

University of British Columbia

Expected April 2026

Bachelor of Applied Science - Electrical Engineering

Work Experience

Salyx Medical - Electronic Engineer Coop

Sept 2024 – April 2025

- Designed a USB-C charger circuit integrating protection ICs, buck converters, operational amplifiers, transistors and various passive components including resistors, capacitors and inductors.
- Conducted circuit testing and simulations using LTspice, followed by creating schematics with corresponding symbols and footprints for PCB schematic design.
- Developed technical documentation and Bill of Materials (BOMs) for various electronic prototypes.

Suncor Energy - Electrical Engineer Coop

Sept 2023 – August 2024

- Created detailed Scope of Works for various electrical equipment, including Transformers, Relays, Circuit Breakers, Cables, Arrestors, and NGRs, outlining work procedures and essential information.
- Proficiently executed redlines and created precise as-built versions of single-line diagrams using AutoCAD.
- Inspected substations prior to re-energization to verify pre-startup safety compliance and confirm readiness for energization.
- Developed a comprehensive transformer oil analysis annual report on over 200 oil transformers, adhering to IEEE and Suncor standards for prioritization, fault identification, and corrective actions.
- Leveraged SAP database to efficiently manage data and streamline workflow processes.
- Coordinated turnaround (planned outage) activities by working with engineers and contractors to track work progress and verify completion of testing across 18 substations, ensuring safe and timely re-energization.
- Performed regular field walkdowns during turnaround to monitor contractor execution, ensuring work quality, adherence to specifications, and proper completion of testing.

Technical Project

Fluor – Energy Systems Simulation Project (UBC Capstone)

Sept 2025 – Present

- Developing a Small Modular Reactor module within Fluor's internal PURE-SIM energy simulation tool to assess technical and economic feasibility of SMRs for remote mining operations.
- Designing algorithms to compare generation performance, cost and reliability across solar, wind, hydro and SMR sources.
- Performing load analysis and forecasting to optimize energy source configurations based on site demand profiles.
- Collaborating with Fluor engineers to ensure compatibility with existing PURE-SIM modules and alignment with company design standards.

Technical Skills

Power Systems: Renewable Energy & SMR Modeling, Load Analysis, High & Medium Voltage Equipment, Scope of Work Documentation, Substation Inspections, Single-Line Diagrams

Software: AutoCAD, Revit, Bluebeam, SAP, SolidWorks, Microsoft Office.