

# Ying Wan

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## ACADEMIC & CO-OP STATUS

University of Alberta, Edmonton AB  
BSc in Computer Engineering, Software, Co-op  
Completed Academic Terms: 6/8

Expected Graduation: April 2025  
Cumulative GPA: 3.3/4.0  
Completed Work Terms: 3/5 | Availability: May-Dec 2024

## TECHNICAL SKILLS

**Programming Languages:** C++, HTML/CSS, Java, MATLAB, Python, SQL, VHDL

**Libraries and Frameworks:** Pandas, PySpark, PyQt, React, Sklearn

**Tools:** Android Studios, GitHub, UTM/VirtualBox/VMware, Visual Studios

## WORK EXPERIENCE

### Process Analytics Co-op

January 2023 – December 2023

*Teck Resources*

- Leveraged **Python, Pandas, Plotly, and Streamlit** dashboards to design and implement customized **KPIs**, enabling monitoring of advanced process control performance and project progression.
- Converted **machine learning** models from Python to **MATLAB** for use in operational technology systems.
- Extracted and executed queries on datasets within Databricks DeltaLake using **PySpark**, enabling informed decision-making.
- **Automated** KPI PowerPoint creation using Python to streamline handoff processes and expedite distribution.

### Undergraduate Researcher

May 2022 - August 2022

*Hussein Lab, University of Alberta | [ying-wan.gitbook.io/libs-gui](https://ying-wan.gitbook.io/libs-gui)*

- **Automated** target controls for laser-induced breakdown spectroscopy experiments to improve efficiency of data collection by over **10** times and completed initial project a month ahead of schedule.
- Programmed motion controls for a 2-axes ball screw stage using **Python** object-oriented programming that interfaced with a **Raspberry Pi's** GPIO pins through UART serial communication.
- Developed user interfacing through a **PyQt** based **GUI** to control 1 and 2 linear actuators connected to a NewPort XPS.

## PROJECTS

**Inventory Android App** | [github.com/CMPUT301F23T02/StressOverflow](https://github.com/CMPUT301F23T02/StressOverflow)

September 2023 - December 2023

Collaborated within a team of 5 to build a **Java** based **Android** application that recorded items with **Firestore** connection.

**Employee Retention Predictor** | [ying-sunwan-employee-retention-prediction.streamlit.app](https://ying-sunwan-employee-retention-prediction.streamlit.app)

May 2023

**Analyzed** and applied **machine learning** models to a HR dataset using **Python Pandas, Plotly**, and **Streamlit** to predict employee retention. Completed as part of the Advanced Data Analytics course with Google Coursera.

**PCOS Risk Prediction** | [credential.net/3f7cc45c-71d3-4097-a232-c7644bb39ce0](https://credential.net/3f7cc45c-71d3-4097-a232-c7644bb39ce0)

September 2022 - November 2022

Collaborated within a team of 4 to apply **machine learning** methods to a dataset on polycystic ovary syndrome using **Python Pandas** and **Plotly** as part of the ML Technician course with Alberta Machine Intelligence Institute.

**Lab Website** | [ying-sunwan.github.io/Hussein\\_Lab](https://ying-sunwan.github.io/Hussein_Lab)

March 2022 - August 2022

Co-developed a **website** to display lab projects, news, and team members using **React**. Due to issues in handoff,

## LEADERSHIP EXPERIENCE

**University of Alberta Women in Science and Engineering (UA-WiSE)**

April 2021 – April 2023

*Director of Design (2021-2022), Director of High School Outreach (2022-2023)*

- Coordinated with marketing to create **70+** graphics to advertise events and advocate for marginalized groups in STEM.
- Acted as a role model and activity volunteer to over **50** high school students at the WISEST SET Conference.
- Served on UA-WiSE/WiSER mentorship committee which oversaw **40** trios complete **3** professional development events.
- Mentored a student transitioning into university through the WISEST Pen-Pal program.

**UAlberta Art Club (UAC)**

January 2021 – September 2022

*Design Team Lead (2021-2022), Co-President (2021-2022)*

- Led **20** executives to deliver events to a club of **300+** members, with full compliance to Student Group Services policies.
- Organized graphics and activities, planned advertising, and scheduled volunteers for UAC's first Club's Fair booth to attract new members, resulting in a **100%** increase in club memberships.
- Organized, developed advertising for, and hosted UAC's first post-lockdown in-person event which garnered **94** participants, a **300%** increase from pre-covid events.