

Ying Wan

linkedin.com/in/ying-sunwan | 780-885-2318 | ywan4@ualberta.ca | Edmonton, AB

EDUCATION

University of Alberta

BSc in Computer Engineering, Software Specialization, Co-op (GPA: 3.4)

Edmonton AB

Expected Graduation: April 2025

TECHNICAL SKILLS

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

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

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

Other: Microsoft Office

WORK EXPERIENCE

Teck Resources Limited

January 2023 - Present

Process Analytics Co-op

- 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 streamlined data analysis and informed decision-making.

Hussein Lab, University of Alberta

May 2022 - August 2022

Undergraduate Research Assistant | <https://ying-wan.gitbook.io/libs-gui/>

- Automated target controls for laser-induced breakdown spectroscopy experiments to improve efficiency of data collection.
- 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.
- Increased experimental efficiency by over 10 times, completed initial project a month ahead of schedule, and developed another automated process.

PROJECTS

Google Advanced Data Analytics Certification, Coursera

May 2023

Employee Retention Prediction | <https://ying-sunwan-employee-retention-prediction.streamlit.app/>

- Analyzed and built a random forest model, predicting whether an employee is likely to continue working at a company or not.

ML Technician Certification I, Alberta Machine Intelligence Institute (AMII)

September 2022 - November 2022

PCOS Risk | <https://www.credential.net/3f7cc45c-71d3-4097-a232-c7644bb39ce0>

- Collaborated with a team of 4 to apply machine learning methods (k-NN, decision trees, linear regression) to a dataset on polycystic ovary syndrome as part of an introductory machine learning course.

Hussein Lab, University of Alberta

March 2022 - August 2022

Lab Website | https://ying-sunwan.github.io/Hussein_Lab/

- Co-developed a website to display lab projects, news, and team members using React, JavaScript, and CSS.

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.
- Co-coordinated with teachers to host presentations at various Albertan high schools.
- 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 Future Creators

April 2022 – September 2022

Vice President Logistics

- Collaborated within the executive team to promote our mentorship program through social media, email, and school channels, increasing mentee signup by 37% within the first three months.
- Engaged with 90+ mentees and parents through email, troubleshooted instances of miscommunication, and solved inquiries of interested parties to ensure cohesive communication throughout our organization.

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.

AWARDS AND SCHOLARSHIPS

- Sanjel Energy Services Award (2023)
- George Grover Leadership Scholarship (2022)
- Natural Sciences and Engineering Research Council of Canada Undergraduate Student Research Award (2022)
- Dean's Research Award (2022)
- Jason Lang Scholarship (2021, 2022)

INTERESTS

Bouldering, Computer and Tabletop Games, Art