Oscar Yan Yu

647-633-7580 | oscar.yanyu@gmail.com | oscaryyu | LordExodius

Education

Honors Computer Science, Honors Business Administration Expected: May 2025
Western University, Ivey Business School *London, ON*

- **Scholarships/Awards**: Western Scholarship of Distinction, Dean's Honour List (2020-2023)
- **Relevant Courses**: Data Structures and Algorithms, Distributed Systems, Object-Oriented Design and Analysis, Operating Systems, Computer Networks, Computer Organization and Architecture, Introduction to Machine Learning

Skills and Interests

Languages: Python, Java, C/C++, SQL (Oracle, SQLite, PostgreSQL), Javascript/Typescript, HTML/CSS, R
Frameworks/Libraries: Next.js, Node.js, React, Flask, Pandas, NumPy, TensorFlow, Keras
Tools: Git, Unix/Linux, Azure, AWS, Databricks, Vercel, PowerBI, Figma
Interests: Photography, Competitive Programming, Mahjong, Mechanical Keyboards, Teamfight Tactics, Snowboarding

Experience

CIBC, Software Developer Intern May 2023 – Aug. 2023

- Implemented 40+ data pipelines using Python and Azure to automate data compression and archival, **reducing storage infrastructure costs by up to 80%** and saving over **$3000 per month**.
- Designed data model to consolidate 30+ unique configuration files into single source of truth via Databricks and Apache Spark while maintaining backwards compatibility for existing pipelines, **speeding up configuration management by 90%**.
- **Reduced Salesforce API calls by 30%** by modularizing API template, eliminating redundant calls for business units using the legacy framework.

Bank of Montreal, Risk Analyst Intern May 2022 – Aug. 2022

- Led PowerBI reporting migration for team of 10, resulting in a **40 hour time reduction** during month-end report creation.
- Developed Python and PowerBI tools to enable counterparty risk tracking for 50+ market risk analysts.
- Automated daily FX report generation via Python and Chron scripts, **reducing data latency by 90%**.
- Optimized data pipeline between database systems and internal reporting/analytics using Jupyter Notebook to automate complex SQL querying, **decreasing time spent on data extraction by 50%**.

Leadership

Western AI, Project Manager Sept. 2022 – Apr. 2023

- Led weekly meetings and mentored team of 5 to develop a convolutional neural network using Python and TensorFlow.
- Developed 12-million parameter Keras Sequential model to classify 500+ species of birds with 70% accuracy.

International Collegiate Programming Contest, Team Coach Jan. 2022 – Present

- Led team of 3 to place **1st out of 16** Western University teams in 2021 and 2022 ICPC North America Qualifiers.

Projects

Western Rank — Python, TypeScript, SQL

- Built a course review platform for Western University and affiliate universities.
- Achieved **over 10 thousand pageviews and 2000+ unique visitors** within 2 days of launch.
- Designed PostgreSQL DB and Next.js REST API endpoints for reviews and course data hosted on Amazon RDS (AWS).
- Scraped description and prerequsites of 6000+ courses to Postgres DB using Beautiful Soup, Psychopg2, and Pandas.
- Integrated 2800+ RateMyProfessor reviews and ratings into course reviews using GraphQL API and TypeScript.

Ivey Learn Plus — JavaScript

- Published a Google Chrome extension used by **250+ users** (30% of our cohort) to enhance Ivey's LMS platform.
- Implemented calendar-based date selector and collated booking info into a single page, improving navigation speed by 85%.

Game Boy ++ — C, C++

- **Note:** Repository private until end of semester assignment submission.
- Emulated the Nintendo Game Boy architecture in C++ for Raspberry Pi by reverse-engineering hardware documentation.
- Implemented complete CPU instruction set, memory management system, and graphics emulation using SDL2.

Ikea Tracker — Python, Bash, JavaScript, SQL

- Web application to track and notify users of stock and restock information for Ikea products.
- Fetched, cleaned, and served JSON data from IKEA's API to web interface using Python and JavaScript.
- Optimized memory usage to meet hardware constraints of ROCKPro64 single-board computer.