Oscar Yan Yu

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EDUCATION

Honors Computer Science, Honors Business Administration　　　　　　　　Expected: May 2025
Western University, Ivey Business School　　　　　　　　　　　　　　　　*London, ON*
- **GPA**: 3.7/4.0
- **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
- Re-designed department-wide data archival system and implemented 40+ data pipelines using Python and Azure to automate data compression and archival, **reducing live archive size by 80%** and saving over **$3000/month**.
- Optimized global config management using Azure Databricks to consolidate 30+ configuration files into a single source of truth, **eliminating version mismatches and reducing deployment time by up to 90%**.
- **Reduced Salesforce API calls by up to 30%** using C# to modularize boilerplate code, enabling discretionary querying.

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.
- Created dashboards using Python and PowerBI to enhance counterparty risk tracking for 50+ market risk analysts.
- Automated daily FX report creation and email delivery 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.
- Participated in 2021 and 2022 Qualifiers and Regionals, contributing to over 35% of the team's scored points.

PROJECTS

Western Rank ⌂ ⊕ — Next.js, TypeScript, Python, SQL
- Built a course review platform for Western University and affiliate colleges.
- 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 prerequisites 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 **280+ users** (30% of our cohort) to enhance Ivey's Canvas LMS platform.
- Conducted user research to determine key student pain points with the existing UX and identify possible solutions.
- Implemented calendar-based date selector and collated booking info into a single page, improving navigation speed by 85%.

Game Boy ++ ⌂ — C++
- Emulated the Nintendo Game Boy architecture in C++ for Raspberry Pi by reverse-engineering hardware documentation.
- Implemented complete CPU instruction set, registers, 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.