Sky Quan

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EDUCATION

McMaster University   Expected May 2027

Computer Science - Bachelor of Applied Science CO-OP

EXPERIENCE

Software Developer (CO-OP) | Ontario Teachers' Pension Plan   Sept 2024 - Aug 2025

- Rearchitected the company's **Docker** base image system, consolidating multiple redundant images into a single standardized **Ubuntu** base image, reducing maintenance complexity and improving efficiency.

- Helped develop a proof of concept (POC) for migrating **CI/CD** workflows from **Jenkins** to **GitHub Actions**. Later collaborated with teams to integrate GitHub Actions into their workflows, providing documentation, training, and best practices for adoption.

- Increased logging visibility within **Ansible** and **Jenkins** for **Flyway** database migrations across **Snowflake**, **MSSQL**, and **Oracle**, improving troubleshooting and monitoring

Research Assistant | McMaster University, Computing and Software   May 2023 – Aug 2023

- Worked with Dr. Stephen Kelly to research evolving adaptable control policies using **gymnasium's** pendulum task and **Distributed Evolutionary Algorithms in Python** (DEAP) to conduct experiments on the partially observable pendulum task using **genetic programming**

- Gathered, arranged, and corrected research data to create representative graphs and charts highlighting using **Pandas** and **NumPy**.

Digitization Student Assistant | McMaster University, Digitization Centre   May 2024 – Aug 2024

- **Digitized** nearly **100 physical theses**, converting them into standardized **online PDF formats** for university-wide access.

- Ensured **high-quality scans and formatting**, maintaining institutional standards for readability and accessibility

PROJECTS

GitHub | https://github.com/Ctrl-Sky

- **Gemini-Job-App-Generator -** Developed an application integrating **Google's Gemini 2.0** model with **Python** to optimize resumes based on job descriptions. The project then automatically generates a tailored cover letter based on the previous results, stores the optimized resume and cover letter in a directory. All executed within a **GitHub Actions** workflow for scalability.

PROJECTS CONTINUED

- **Expense Sheet Combiner** - Created a **Python**-based expense sheet combiner that reformats and consolidates transaction data from multiple sources (bank and credit cards) into a single standardized sheet. Utilized **Pandas** and **NumPy** to organize purchases by month and date into a single **excel** sheet, streamlining expense tracking and management

- **Gym Tracker App** - Developed a **workout tracking app in Swift** that allows users to log and track workouts using **persistent data storage**. Designed the app to handle **save errors**, utilize a **persistent controller**, and execute **filtered fetch requests** for efficient data retrieval.

EXTRA CURRICULARS

AgentX Hackathon | Ontario Teachers' Pension Plan   Jan 2025

- Designed an **AI-powered call assistance agent** to support the customer service team.

- **Real-time AI system** that listens to conversations and suggests appropriate actions based on customer requests

- Enables **automatic task execution** allowing call agents to confirm AI-suggested actions

Code Create Hackathon | Canada Learning Code   Sept 2023

- Collaborated with a team to develop a **website promoting sustainability in the technology sector**.

- Designed an **interactive platform** to educate users on **eco-friendly practices** in tech, such as energy-efficient coding and e-waste reduction.

Teen Ambassador | Canada Learning Code   July 2021

- Led **hands-on workshops** teaching youth (ages 8-12) how to program using **PyGame**.

- Fostered a **fun and engaging learning environment**, encouraging creativity and problem-solving through coding.

HONORS AND AWARDS

DECA Alumni Entrance Scholarship | McMaster | **$15,000**   Sept 2022

- One of 10 students awarded this award
- Earned by demonstrating **leadership, initiative, and strategic thinking** as **President of DECA**.

Dean's Excellence Engineering Research Experience Award | McMaster | **$6000**   Sept 2022

- Qualified by being among the top-ranking students in the Faculty of Engineering at the time of admission

McMaster Award of Excellence | McMaster | **$3000**   Sept 2022

- Qualified by maintaining a **97% +** academic average