Catherine Chen

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catherine.cc

// work experience

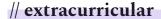**Teaching Assistant - McMaster Faculty of Engineering**
Sept 2020 | Present
- **Instructs** and invigilates **Computing & Graphics** labs for ENG1P13 (Integrated Cornerstone Design Projects).
- Teaches fundamental concepts of programming in **Python** and **CAD** skills to **50+** students.

Web Developer - Heart Lake Orthodontics
July 2019 | Aug 2019
- Developed a customized responsive website using **HTML** and **CSS** along with WordPress to help a professional business succeed in attaining their goals.
- Enhanced **Search Engine Optimization** (SEO) and learned how to improve, troubleshoot and debug code.

// extracurricular

Course Partnerships Campus Lead - GlobalSpark
May 2020 | Present
- **Coordinated partnerships** with **5+ engineering courses**, inspiring **700+** students to solve global engineering issues.
- **Developed course content** to integrate global development concepts into curriculum.

VP of Professional Development - Software Engineering Society
April 2020 | Present
- **Organized** conferences, workshops, and networking events for software engineering/computer science students.

// projects

Nuage & Soleil • Aug 2020
- Architected a **scalable e-commerce web app** to sell homemade baked goods using **Django** which updates **dynamically** when new products are added to the database; deployed using Heroku.
- Leveraged Stripe API for payments and implemented **cookies** to remember previous user cart contents.

Decrypstocks • April 2020
- **Designed** an interactive Java app using an **object-oriented** approach in an **agile environment** to propose the most profitable stocks to invest in based on user criteria by analyzing trends in stock market datasets.
- Implemented modified **quicksort** and **binary search** algorithms.
- Authored comprehensive **design documents** and **system requirements specifications** complete with UML diagrams.

Trash Code • Jan 2020. Best use of Machine Learning/AI. Ranked 2nd/158.
- Created a web app to categorize trash with a real time feed generated through **TensorFlow** object detection and trained machine learning models to classify objects using **Python** and **MongoDB** database.

Ütrition • Jan 2020. Best use of UiPath Automation. Ranked 1st/62.
- Developed an app that analyses food photos and tracks nutrition summaries collected by Nutritionix API.
- Implemented **computer vision** and **robotic process automation** to develop a robot that performed image/gps **data scraping** from Google Photos and forwarded data into the cloud Firebase.

// education

McMaster University
B.Eng in Software Engineering
Intended grad: **April 2022**
Dean's List. GPA: 3.7/4.0

Relevant Courses: Data Structures and Algorithms, Software Design and Development, Databases, Linear Optimization

// languages

python java C javascript HTML CSS bash matlab sql

// frameworks & tools

git django latex doxygen bootstrap photoshop autocad

// achievements

Women in Engineering Mentor
Sept 2019 | Present
Mentored three first year girls interested in tech, providing advice and insights on computer science

Seeds for the Future - Huawei
Aug 2020
Selected for Huawei's flagship CSR program to develop **ICT, IoT, cyber security, and AI skills**.

Hashcode Competition - Google
Feb 2019. Ranked 2nd at McMaster. Programmed a solution to sort photos systematically based on related tags using Python.

PADI Cert. Open Water Diver
May 2019

// interests

girls in tech digital art french macarons diving sustainability