








Amy Hu

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SKILLS

Languages	Java, C/C++, C#, Python, HTML, CSS, JavaScript, Haskell, VHDL, SQL, MATLAB
Frameworks	ASP.NET, Flask, FastAPI, Unity, jQuery, PyTorch, TensorFlow, Swing, Bootstrap, Hexo
Databases	MySQL, PostgreSQL, SQLite, Redis
Tools	Git/GitHub, Docker, TeX TeX, IntelliJ Idea, Pycharm, VS/VSCode, SSMS, Railway, Figma

EXPERIENCE

Present Jan 2022	Autonomy Team Lead, WATERLOO, Waterloo Aerial Robotics Group <ul style="list-style-type: none">➤ Leading the autonomy team with 20+ members to deliver software that help UAV derive information from image, video, as well as coordinate inputs, and received the perseverance award in AEAC 2023.➤ Overseeing the team in design and develop a graphic interface and data-telemetry system for the drone's ground station using Figma and PyQt5.➤ Assisted the development of a YOLOv8 and PyTorch based drone landing-pad detection model.➤ Collected custom datasets and accelerated the process of dataset annotation by implementing a Python program and modifying a JavaScript project to convert dataset labels into YOLOv5/8 format.➤ Implemented a program to classify images using a deep neural network in TensorFlow to identify 10 different types of object classes. <div>Python PyTorch TensorFlow JavaScript Figma PyQt5</div>
Apr 2023 Jan 2023	Front-End Developer, NORTH YORK, Sparklease Inc. <ul style="list-style-type: none">➤ Worked with RESTful API and ASP.NET MVC to develop user uploaded vehicle's detail page in ASP.NET and WeChat MiniApp.➤ Applied lease/finance monthly payment algorithm to implemented a calculator with various canvas widgets such as a draggable round progress bar.➤ Integrated and enhanced vehicle and user information upload features using JS and AJAX.➤ Improved the website's performance by 60% and optimized SEO by applying Lazy Load, eliminating unnecessary codes, enabling text compression, and using crawlable links etc. <div>ASP.NET MiniApp JavaScript REST API AJAX</div>
Aug 2022 May 2022	Web Developer, TORONTO, eButterfly <ul style="list-style-type: none">➤ Developed the 6.0 version of the company's website and admin panel in React and finalized the server using node.js, features include data listing and data filters etc.➤ Finalized the swagger documentation in the company's server.➤ Led a group of five people with another colleague in the e-butterfly lab project by providing helps and advises with the back-end and the environment setup. Self taught Flask and FastAPI during this. <div>React node.js TypeScript Python Flask FastAPI Docker</div>
Jun 2020 Feb 2020	Curriculum Developer Intern, RICHMOND HILL, Hatch Coding <ul style="list-style-type: none">➤ Developed games using JavaScript and Python to teach kids coding.➤ Authored curriculum material on programming fundamentals. <div>Python JavaScript</div>

PROJECTS Find more projects at : trotyl.xyz/projects

THE MADHOUSE ADVENTURE GAME

DEC 2019 - JAN 2020

 github.com/trotyl15/themadhouse

-Created a graphical interface for an 2D RPG adventure game using **Swing** and developed game logic using **Java OOPs** concept.
-Used **PhotoShop** to create a visually appealing pixel game design and original character sprites.

Java Swing

PARO-TENNIS (WORK IN PROGRESS)

APR 2023 - PRESENT

 github.com/trotyl15/paro-tennis

-Familiarized myself with **C#** and **Unity** to create a 2D tennis game with self-drawn background and original characters.
-Applied **Rigidbody Physics** and **Collider** to make the game more realistic and playable.

Unity C#