








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, \LaTeX , 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 got 4th place in AEAC student competition.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>
May 2022 Aug 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#