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
> Leading the autonomy team with 20+ members to deliver software that help the UAV derive information from the image, video, and coordinate inputs.
> 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.

`Python` `PyTorch` `TensorFlow` `JavaScript` `Figma` `PyQt5`

Apr 2023
Jan 2023

Front-End Developer, North York, Sparklease Inc.
> 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 and update features using **AJAX**.
> Improved the website's **performance** by 60% and optimized **SEO** by applying **Lazy Load**, eliminating unnecessary files, enabling text compression, and using crawlable links etc.

`ASP.NET` `MiniApp` `JavaScript` `REST API` `AJAX`

May 2022
Aug 2022

Web Developer, Toronto, eButterfly
> Developed the 6.0 version of the company's website which migrates the website from Angular to **React** and finalized the server using **node.js**.
> Built the admin panel's pages according to an older Angular version in **React** and developed data listing feature and data filter.
> 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 project.

`React` `node.js` `TypeScript` `Python` `Flask` `FastAPI` `Docker`

Jun 2020
Feb 2020

Curriculum Developer Intern, richmond hill, Hatch Coding
> Developed games using **JavaScript** and **Python** to teach kids coding.
> Authored curriculum material on programming fundamentals.

`Python` `JavaScript`

🖥 Projects   Find more projects at : 🔗 trotyl.xyz/projects

Personal Website and Blog   Aug 2020 - Present

⊙ github.com/trotyl15/trotyl-home   🔗 trotyl.xyz   🔗 blog.trotyl.xyz

-Self-taught **HTML** and **CSS** to create the front-end of a website which includes my past projects and information about myself.
-Implemented the back-end side using **Python Flask** and stored the data by **PostgreSQL**, letting me to add new projects on the website dynamically.
-Developed a project preview widget using **JS** that shows the expected look of the project block before sending it to the server.
-Automated the blog deployment process by adding **GitHub Actions** into the pipeline.
-Deployed the blog through **Github Page**, **Vercel** and **Cloudflare**, and the website on **Railway**.

`Python` `Flask` `PostgreSQL` `HTML` `CSS` `JavaScript` `Heroku` `Hexo`