

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 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. <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 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. <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

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