







Amy Hu

 University of Waterloo 2B Computer Engineering

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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, VSCode, Heroku, Figma, Excel

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>PythonPyTorchTensorFlowJavaScriptFigmaPyQt5</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 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. <div>ASP.NETMiniAppJavaScriptREST APIAJAX</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>Reactnode.jsTypeScriptPythonFlaskFastAPIDocker</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>PythonJavaScript</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**.

PythonFlaskPostgreSQLHTMLCSSJavaScriptHerokuHexo