

Danny Wu

✉ d246wu@gmail.com • 🏠 dannywuwu.github.io • 📷 dannywuwu • 🌐 wuda

Skills

Languages Python • JavaScript • TypeScript • C# • C++ • C • Java • Kotlin • SQL • HTML/CSS
Technologies React/Redux • Angular • Node • Express • Flask • ASP.NET Core • Docker • Jest

Experience

IBM

Unionville, Ontario

EXTREME BLUE - MICROSERVICES

May 2022 - August 2022

- Prototyped an AI tool enhancing IBM's **Mono2Micro** to define **architecturally solid APIs** to facilitate app modernisation through microservices
- Designed and implemented solutions using **static and dynamic analysis** to recommend API endpoints with **high explainability** to a partitioned monolithic application, coordinating information dependencies and exposing necessary functionality for concise API definitions
- Pitched product and solution to executives bi-weekly, cultivating public speaking and presentation skills in front of broad audiences

Smart & Biggar

Ottawa, Ontario (Remote)

SOFTWARE DEVELOPER - IT

September 2021 - December 2021

- Trained a multiclass **ML classification model** for **10 categories** with **95% precision** using the **spaCy NLP** library in **Python** on extracted emails
- Built an automation process in **C#** to keep **SQL** database consistent with DayForce HCM employee information by **concurrent HTTP requests**
- Introduced **Angular** and **Docker** to the tech stack, improving frontend code quality and containerizing backend services for easier deployment

Smart & Biggar

Ottawa, Ontario (Remote)

SOFTWARE DEVELOPER - FULLSTACK

January 2021 - April 2021

- Developed a **widget dashboard** framework from scratch in **ASP.NET Core** for a web portal landing page using the **MVC design pattern**
- Built an **ASP.NET Core Web API** to manage dashboard data using **CRUD** operations on **SQL Server** with **Dapper ORM** and stored procedures
- Wrote API endpoints in **C#** and integrated **SignalR Websockets** with client-side **JavaScript** for **real-time notifications** of changing data
- Implemented **UiPath RPA** to automate manual tasks including scraping data, converting emails to PDF, and sorting 1000+ emails daily

AlgoDaily

New York, NY (Remote)

CONTENT CREATOR/QA

September 2020 - February 2021

- Produced videos explaining algorithms and **wrote articles on programming** including algorithmic analysis and software interview knowledge
- Provided solutions and developed automated test cases for algorithm questions using **JavaScript**, **Python**, and the **JUnit** testing framework

University of Waterloo

Waterloo, Ontario (Remote)

SOFTWARE ENGINEERING - MOBILE

June 2020 - August 2020

- Created a **React Native** app to connect Waterloo students in-person through activities pertaining to COVID guidelines
- Implemented user group chat messaging between activity members using **Firebase Realtime Database**, handling 30+ concurrent users

Projects

Youtube Video Quiz

GITHUB.COM/DANNYWUWU/VIDEO-GUESSER

October 2021

- Created an online trivia game in **React** running in **real-time** using **Socket.IO WebSockets** on an **Express backend** written in **TypeScript**
- Designed frontend with **Ant Design UI**, rendering data from the **Youtube API**; developed WebSocket events and wrote test suite using **Jest**

Picture Police

GITHUB.COM/DANNYWUWU/PICTURE-POLICE

September 2021

- Built a bot with **Discord.py** which analyzes and censors explicit images and profanity using a **Flask** server hosted on **Google App Engine**
- Integrated **Google Cloud Vision OCR** with image classification library and **Python PIL** to modify and replace unacceptable image content
- Combined above with **NLTK sentiment analysis** and custom profanity checking to produce a safety rating based on both text and image

Aang

GITHUB.COM/DANNYWUWU/AANG

January 2021

- Built a **React** web application styled with **Chakra UI** that tracks user body posture in **real-time** using their webcam at Hack the North 2020++
- Used **Tensorflow's Posenet ML model** to retrieve pose data from video feed, calibrating initial posture for use **with any camera/position**
- Implemented visuals to notify users of deviation from their initial calibrated position based on calculations comparing recent user pose data

Education

University of Waterloo

Waterloo, Ontario

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING (CO-OP)

September 2019 - April 2024

- President's Scholarship of Distinction, Purdy Crawford Entrance Scholarship for Academic Achievement
- UW Software Engineering Society - Executive VP Events, Waterloo Engineering Student Ambassador
- Relevant Courses: CS240 (Data Structures) • CS247 (OOP) • CS341 (Algorithms) • CS348 (Database Systems) • SE350 (Operating Systems)

Royal Conservatory of Music

Toronto, Ontario

ARCT DIPLOMA IN PIANO PERFORMANCE: FIRST CLASS HONOURS

August 2019