

Hyoeun Chang (Noa)

h62chang@uwaterloo.ca (437) 339-5436 <https://github.com/AnnChangSal> Kitchener, ON, Canada

Education

University of Waterloo

Sep 2022 - Present

Bachelor of Mathematics - Mathematics Honours

Relevant Courses: Data Structures, Foundations of Programming (C), Algorithms & Analysis, Calculus

Scholarship: UW President's Scholarship of Distinction (\$2,000 for **95%+** average)

Key Skills

Programming Languages & Frameworks: Python, R, SQL, C, C#, C++, TypeScript, JavaScript, React, HTML/CSS, Clojure, Django, Flask, TensorFlow, Node.js, Express.js, MATLAB

Technical Skills: Web Development, Problem Solving, Git, PyTorch, UI Development, API Development, RESTful APIs, Whisper, AWS, Unity, Blender, Machine Learning, Computer Vision, OpenCV, Statistics, Linux, Visual Studio, Data Analysis, Database Management, Data Visualization, Version Control System, NLP, Big Data, Firebase

Experience

Ontario Nutri Lab

Sep 2024 - Dec 2024

Researcher

Fergus, ON, CA

- Monitored the health and wellbeing of over **400 cats and dogs** daily, tracking variables like diet, supplements, and external factors.
- Conducted daily checks on pet food and supplements, ensuring adherence to health and nutritional standards.
- Assisted with emergency procedures, assessing animal conditions and facilitating veterinary care.

Happy Pharmacy

Jan 2022 - Jul 2022

Technician

South Korea

- Supported pharmacists with customer service, inventory management, and operations, enhancing workflow efficiency by **10%** during COVID-19 by optimizing the **POS system**.
- Resolved complex customer and **operational issues**, earning recognition for exceptional service and **technical support**.
- Contributed to the creation of a comprehensive **troubleshooting** guide, improving efficiency for internal staff and third-party vendors.

YesPharm

Jun 2020 - May 2021

Data Analyst

South Korea

- Analyzed sales and patient data using **Excel** and **SQL**, deriving actionable insights that informed business strategy.
- Created **visual reports** that influenced key decision-making processes, driving improvements across various business functions.
- Streamlined reporting processes, **automating** tasks to minimize errors and increase productivity.

Guide-U

Sep 2023 - Aug 2024

AI Junior Researcher

Remote

- Conducted research on real-time recognition technologies, integrating **OpenAI's Whisper** and Hugging Face models for natural language understanding.
- **Fine-tuned Whisper** using **PEFT** techniques, achieving a 90% accuracy rate in meme recognition within videos.
- Developed and deployed a **Chrome extension** for real-time meme recognition, integrating **YOLOv8** for facial detection and speaker identification.

Achievements

UWaterloo DataFest 2024 (ScotiaBank, ASA, UW Sponsored)

Apr 2024

- Analyzed complex datasets using **R**, identifying key correlations between student interests and academic performance.
- Utilized advanced graphing techniques to create insightful visualizations.
- Awarded 'Honourable Mention' for balancing actionable insights with exceptional data visualization.

Projects

Still Unemployment

Oct 2024

Project Lead & Developer

Python, Gmail IMAP, Cron, python-dotenv

- Developed a Python tool to manage job application emails via **Gmail IMAP**.
- Automated email retrieval with cron jobs for regular updates.
- Classified emails into acceptance/rejection using custom algorithms.
- Secured credentials with python-dotenv, ensuring data protection.
- Implemented logging for system monitoring and reliability.
- Created comprehensive documentation for team collaboration.

Give Me Opportunity

Oct 2024 - Present

Creator & Developer

Python, Flask, HTML/CSS, JavaScript

- Developed a job search web application that integrates with **RapidAPI** to fetch and display job listings based on job type, location, and job level.
- Implemented job filtering by location, job title, and experience level with a clean, Apple-like **UI design**.
- Utilized **Flask** for the **backend API** and incorporated dynamic **frontend** features using **JavaScript** and **Bootstrap** for responsive design.
- Released v0.1.0 on **GitHub**, including basic job search functionality and plans for future improvements.

Or I Will Listen Muzic

Oct 2024

Creator & Developer

Node.js, Express, JavaScript, HTML/CSS, Spotify Web API

- Created a Spotify-integrated app for logging job rejections and getting song recommendations.
- Implemented secure **OAuth 2.0** authentication with Spotify's **API**.
- Developed **RESTful** endpoints for playlist management and song additions.
- Designed a responsive **frontend** with **HTML/CSS**, ensuring seamless user experience across devices.
- Enhanced security with **Helmet** middleware and Joi for input validation.
- Enabled dynamic interactions with Spotify's API for easy playlist updates.

PalmScan

Nov 2024 - Present

Full-Stack Developer

Python, Flask, OpenCV, Heroku, HTML, CSS

- Developed a **full-stack web application** that allows users to upload palm images and receive simulated palmistry readings using **Python** and **Flask**.
- Implemented image processing features with **OpenCV** to detect and highlight palm lines in uploaded images.
- Designed and developed responsive **front-end** interfaces using **HTML** and **CSS**, ensuring a user-friendly experience.
- Deployed the application on **Heroku**, managing dependencies and environment configurations for seamless integration.
- Integrated **Google AdSense** for monetization, adhering to compliance and privacy policies.