

Henry Wang

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EDUCATION

University of Western Ontario

Sept 2022 – Expected May 2026

*Bachelor of Engineering Science: Software Engineering**Current GPA: 4.0+/4.0*

Courses: Data Structures & Algorithms, Scripting Language Fundamentals, Software Design, Software Construction, Web Technologies, Database Management Systems

Awards: Dean's Honor List (2x), Social Good Award at the Toronto Tech Expo, UWO In-Course Academic Merit Scholarship

EXPERIENCE

Frontend Web Developer

May 2024 – June 2024

*Predictify Pro**London, ON*

- Designed and implemented the company's main website using **Next.js**, Tailwind CSS, and HTML, creating a modern and responsive user interface that increased site traffic by approximately **15%** after 1 month
- Collaborated directly with the company founder to align with project requirements, ensuring timely delivery and adherence to expectations

PROJECTS

AI Music Composer | *Python, NumPy, TensorFlow, Keras, Next.js*

- Leading a team of **7** software developers as Co-Director of a Western Cyber Society Student Innovation Project, driving project execution and fostering collaboration
- Developing a full-stack web application tool using **Next.js** utilizing recurrent neural networks to assist with music composition and MIDI generation
- Trained an LSTM recurrent neural network using **Tensorflow** and **Python** with **100+** preprocessed MIDI files, producing a model that can generate coherent and original MIDI compositions

Hands On Learning | *ReactJS, Python, NumPy, TensorFlow, Keras, MediaPipe, OpenCV, Flask, Django*

- Developed a American Sign Language to English translation and education web using **ReactJS** and **Python**, leveraging ML and computer vision to improve accessibility communication using **Tensorflow** and **OpenCV**
- Led development of the ASL hand gesture recognition model, training over **60** unique signs with **95%** accuracy, ensuring reliable real-time translation
- Collaborated with a team of **7** developers to design and implement a full-stack web application, seamlessly integrating frontend and backend components using **Django** and **Flask**
- Presented to a panel of industry professionals at the Toronto Tech Expo, securing a **\$700** prize and winning the Social Good Award for innovation in accessibility solutions

FlipThatSheet | *Python, NumPy, Tensorflow, Keras, MediaPipe, OpenCV, Auth0, MongoDB, Next.js, Express.js*

- Developed a full-stack web application using **Next.js** to enable piano players to turn music PDF pages through head gesture recognition, allowing hands-free page turning during playing and PDF storage with **MongoDB**
- Trained a computer vision model using **Tensorflow** and **Keras** using over **400** self-recorded videos for training, resulting in **97%** accuracy

EuroView (Course Project) | *ReactJS, Node.js, Express.js, Firebase, AWS*

- Developed a full stack application with **ReactJS** to allow users to view, favorite, and rate destinations across Europe, delivering an interactive travel planning experience
- Implemented **RESTful APIs** using **Firebase** Auth API and JWTs for user authentication and role-based access control, supporting up to **50,000** active monthly users
- Utilized **Firestore** to manage destination ratings and favorite lists data, supporting up to 1 GB (approximately **5,000,000** documents) of user data with potential to scale
- Earned a perfect grade (**100%**) in SE3316A: Web Technologies, demonstrating proficiency in web development technologies and best practices

SKILLS

Languages: Python, Java, SQL, JavaScript/TypeScript, HTML/CSS, C#

Frameworks/Libraries: TensorFlow, Keras, OpenCV, MediaPipe, Node.js, Next.js, React, Express, Flask

Tools: Git/GitHub, AWS, MongoDB, Firebase, Unity, MySQL