

# Karen Huang

✉ karen.huang@uwaterloo.ca 📞 (647) 639-6837 🌐 Personal Website [in LinkedIn](#) [🐙 Github](#)

## SKILLS

### Languages & Frameworks

Python, C++, Java, JavaScript, TypeScript, C, Scheme, Bash, Django, NodeJS, Knockout JS, React, jQuery, Jasmine, Jest, Maven

### Tools & Services

AWS (S3, DynamoDB, Lambda, EC2, SQS), Swagger, Flask, Postman, preSQL, MongoDB, Elasticsearch, Jenkins, Docker, GCP, Bootstrap, Jupyter, Figma

## PROFESSIONAL EXPERIENCE

### Genesys, Full-Stack Developer

Sep 2023 – Dec 2023

- Engineered a batch retrieval API endpoint with **Python**—along with **Swagger** and **Flask** implementation—optimizing data access by enabling simultaneous querying of multiple category IDs in specified databases. Used in three unique Genesys products.
- Designed and implemented a comprehensive suite of automation tests for GET, POST, PUT, and DELETE HTTP requests in **Java**, ensuring robustness and reliability of API endpoints.
- Presented data through responsive UI fetched from HTTP requests using **Knockout JS**.

### Empire Life Insurance, Full-Stack Developer

Jan 2023 – Apr 2023

- Created new **Django** form fields for newly added investment products. Also worked with **HTML/CSS** and **jQuery**.
- Created a tool for the **Django** admin dashboard to facilitate enabling and disabling of feature flags, increasing engineering efficiency and productivity in development stages.
- Fully automated the system for email reminders on incomplete investment forms using **Django** management commands and the **SendGrid API**. Worked with **preSQL** to validate data.

### Eon Media Corp., Full-Stack Developer

May 2022 – Aug 2022

- Designed and owned the end-to-end development of a video management portal, displaying data from **AWS S3** using **MongoDB**, **Elasticsearch**, **React**, **TypeScript**, and **NodeJS**.
- Built a search engine with autocomplete and autocorrect, alongside filtering and sorting tools with **Elasticsearch**, **React**, **TypeScript**, and **NodeJS**.
- Created new tools for AI developers to assist in their training for brand recognition models with **Javascript**, **HTML/CSS**.

## PROJECTS

### Spotify MBTI [🔗](#)

- Created a full-stack web application that worked with **Spotify's API** to calculate a user's "listening personality".
- Made API calls to access any user's Spotify history and create a personalized playlist unique to the user.
- Built the front-end in **ReactJS** and back-end with **NodeJS**.

### Biquadris, (source provided upon request)

- Collaborated in a team of three to build a two-player version of Tetris written in **C++**.
- Incorporated various **design patterns** and **architectures**—such as MVC, decorator pattern, factory pattern—to ensure efficiency and reusability of code.
- Built a graphics version of the game with **XWindow X11**. (Game can also be played without graphics.)

### Shortcake [🔗](#)

- Created a Chrome extension in **JavaScript** and **HTML/CSS**, for one-click extraction of recipe ingredients.
- Designed an intuitive and visually appealing user interface, optimizing accessibility for quick access to recipe details.

## EDUCATION

### University of Waterloo, Computer Science

Apr 2025 | Waterloo, Canada

Relevant Courses: Elementary Algorithm Design and Data Abstraction (**C**), Object-Oriented Software Development (**C++**), Data Structures and Data Management (**C++**), Foundations of Sequential Programs (**C++**)

## MISCELLANEOUS

**CLUBS:** UWaterloo a cappella [🔗](#), UWaterloo hip-hop **HACKATHONS:** Hack the North [🔗](#), Hacky Winterland [🔗](#)

**EVENTS:** Collision Conference, Premier Institute Women in Science Seminar **SCHOLARSHIPS:** President's Scholarship of Distinction Entrance Scholarship (University of Waterloo)