




# KEVIN WU

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## Education

### University of Waterloo

Bachelor of Computer Science - GPA 3.94

September 2023 – Present

Waterloo, ON

## Experience

### McMaster University

Research and Product Development Intern

June 2022 – August 2022

Hamilton, ON

- Created a **data-driven athletics product** for competitive swimmers to track metrics such as distance traveled underwater, strokes per length, breaths taken, working under Professor Zheng.
- Designed a wearable piece of **hardware** using **MbientLab MetaSensors** to collect **10+** types of data.
- Collected, analyzed, and processed sensor data (.csv) into **10,000+** data points per recorded swim using Python libraries **NumPy**, **SciPy**, **Matplotlib** to filter and visualize as graphs.
- Analyzed and developed algorithms to compute data values into **7** unique metrics using **Python**.
- Used **Jupyter Notebook** and **Agile methodologies** to document progress and collaborate with others in the project.

## Projects

### **EmailManager** | *Python, Next.js, Tailwind CSS, Flask, SQL (Postgres)*

- Developed AI-based web app with user authentication to store **nearly unlimited** emails in database, automatically detect and delete spam emails, and draft professional replies to important messages.
- Integrated **REST APIs** to automate email management with **Postgres**, using client-server interactions at API endpoints for flawless POST/GET requests.
- Utilized **Google Cloud** services to retrieve user email data, and employed **OpenAI's API** to generate and store email replies as drafts.
- Combined **Next.js** and **Tailwind CSS** styling to design interactive frontend for smooth user experience.

### **Spotify Discover Whenever** | *React, Tailwind CSS*

- Produced web app to help users find **up to 50** new recommendations at a time based on Spotify listening history.
- Utilized **REST API** principles and **JavaScript's Fetch** to generate recommendations and create playlists, using **Spotify's API**.
- Integrated **React** fundamentals to dynamically manage data between React components, using **React Hooks**.
- Applied **React**, **Tailwind**, and **Figma** design principles to improve user experience with Spotify-themed display.

### **Tinder Clone** | *React, Node.js, MongoDB*

- Created Tinder clone with account creation, user authentication, matching system, and chatting capabilities.
- Integrated **MongoDB**, **AWS services** to store **limitless** user and message data from interactive **React** frontend.
- Created multiple routes in **Express** backend, connected to **MongoDB Atlas** for data storage, retrieval and editing.
- Applied **Tailwind CSS** to design **near-identical** UI to original Tinder app.

### **C-RPG** | *C++*

- Developed interactive text-based RPG with a tutorial, story line, **3** playable classes, **25+** monsters, areas, and bosses.
- Implemented **OOP** fundamentals to keep code reusable, and create game with minimal amounts of boilerplate code in **C++**.

## Technical Skills

**Languages:** Python, JavaScript, TypeScript, C++, SQL, Java, HTML, CSS

**Technologies:** Git, Bash, Unix, Next.js, React.js, MongoDB, Flask, Pandas, NumPy, SciPy, Google Cloud, Docker

## Awards & Achievements

### National Mathematics Scholarship - Value: \$15,000

Entrance Scholarship

April 2023

University of Waterloo

- Awarded for passion in the field of mathematics, notable contest scores, and high school/extracurricular achievements.
- Mathematic Achievements: Canadian Senior Mathematics Contest - Top **200** of **10,000**; Euclid Mathematics Contest - Top **800** of **20,000**; Hypatia Mathematics Contest - Top **60** of **4,600**.
- High School Extracurriculars: Student Council Vice President, National-level Swimmer - Top **20** 17 Y.O. 200 Fly CAN