Kevin Wu

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Education

University of Waterloo **September 2023 – Present**

Bachelor of Computer Science - 90% / 3.95 GPA *Waterloo, ON*

- Scholarships and Awards: National Mathematics Scholarship **($15,000)**, President's Scholarship **($2,500)**
- Coursework: Algorithm Design, Compilers (Adv.), Functional Programming, Object Oriented Programming

Technical Skills

Languages: Python, JavaScript, TypeScript, C#, C++, C, SQL, Java, HTML, CSS
Technologies/Libraries/Tools: Next.js, React, Git, Bash, MongoDB, Flask, Pandas, NumPy, SciPy, Selenium, OpenCV

Experience

Software Developer Intern **May 2024 – September 2024**

SaFuture Inc and Qwhery *Remote in Canada*

- Developed and deployed **40+** new features across **25+** components and **14** pages to production using **React**, **C# (.NET)**, and **SQL (SSMS)**, reshaping an equipment management application for the mining industry
- Streamlined mining equipment management in a SQL database by designing and implementing user interfaces, endpoints, and procedures using **React**, **C#**, and **SQL**, following an **XP framework**
- Engineered robust pipelines for importing, exporting, and managing mining data via Excel, enabling offline equipment management. Built with **C#** and **VBA**, reduced manual input errors and **saved 3+ hours** of validation per sheet
- Automated PDF filling and generation on a report-writing platform for homeowners using **Selenium**, reducing manual efforts by **20** hours per week

Research and Product Development Intern **June 2022 – August 2022**

McMaster University *Hamilton, ON*

- Developed 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 wearable **hardware** using **MbientLab MetaSensors** to collect **10+** types of data relevant to swim quality
- Collected, analyzed, and processed sensor data (.csv) into **10,000+** data points per recorded swim using Python libaries **NumPy, SciPy, Matplotlib** to produce graphs and visualize underwater body movement
- Created algorithms to compute **7 unique** metrics for swimmers, enabling targeted improvements in swim performance.
- Used **Jupyter Notebook** and **Agile methodologies** to document progress and enhance collaboration and efficiency

Projects

GitInsights | *TypeScript (React & Express), PostgreSQL* **Best Dev Tool 2nd Place @ Hack The 6ix**

- Created a **Developer Tool** to improve developers' understanding of codebases, placing **2nd** out of **300+** participants
- Created an API using **auth0** and **PostgreSQL** to securely login and store user, repo, and summary information
- Utilized **OpenAI API** and **GitHub API** to tag commits and generate accurate summaries based on exact code changes
- Implemented an interactive visual timeline using **D3.js**, enabling users to track code activity across multiple branches

Memoir | *JavaScript (React), Python (Flask), MongoDB*

- Created a **Social Media platform** with account creation, user authentication, post creation, and data clustering.
- Employed **Cohere** for semantic analysis, then processed with a **BIRCH Clustering** algorithm to group posts by content.
- Implemented a connected node graph feature using **Scikit-learn** and **D3.js**, visualizing clustered data points.

Spotify Discover Whenever | *JavaScript (React)*

- Produced **Web App** to help users find new recommendations at a time based on Spotify listening history
- Utilized **REST API** principles and **Fetch** to generate recommendations & create playlists, using **Spotify's Web API**
- Applied **React, Tailwind, and Figma** design principles for sleek UI design and improved UX with Spotify-themed display

Solaris | *Godot, GDScript*

- Created a **2D platformer game** using **Godot**, with interactive elements, 10+ equipable items, and 50+ levels.
- Collaborated with a team of **4 developers, testers, and graphic artists** to enhance aesthetics and player experience.
- Built a variety of gameplay, ranging from game environment to boss levels, using a combination of **Godot Engine nodes** and scripts in **GDScript**