RACHEL WEI

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EDUCATION

University of Waterloo + Wilfrid Laurier University   **Expected May 2028**
Bachelor of Computer Science + Business Administration Double Degree (BCS/BBA)

- **Involvements:** IgnitionHacks 2024 (Designer), Hack the North 2024 (Volunteer)
- **Awards:** IgnitionHacks 2023 (1st Overall), RhythmHacks 2023 (2nd Overall), PC Health App Live Case (Semi-Finalist), Euclid + Canadian Senior Math Competition 2023 (Top 25%)

WORK EXPERIENCE

CI Technologies | *Full-Stack Developer Intern*   **May - Aug 2025** | *Vancouver, B.C*

- Spearheaded large-scale, multi-application feature to **fetch and compare public safety data** in Java and Javascript
- Engineered efficient schema with SQL/PostgreSQL to efficiently fetch and store reports of over **1400+ police agencies**
- Designed and tested scalable **Java RESTful APIs** to support seamless communication across 5 applications.
- Communicated implementation ideas proficiently with teammates using **UML Diagrams and Figma prototypes.**

PROJECTS

WatGuessr.io | *Java, Vue/Vuex, AWS S3, Node.js, Spring Boot, SQL/PostgreSQL, Websockets*

- Designed and launched a **real-time, multiplayer GeoGuessr web game** for the University of Waterloo.
- Implemented **JWT Tokens, Google OAuth and HTTP cookies**, ensuring security and preventing sensitive data leaks.
- Developed and Illustrated the frontend with **Vue/Vuex**, integrating **Mapbox API** for interactive map-based gameplay
- Reduced deployment preparation time by **80%+** by automating the image upload pipeline with **Python and AWS S3.**

Viral 3D Portfolio Website | *JavaScript, React, THREE.js, Blender, TailwindCSS, Figma, Framer*

- Launched an immersive 3D portfolio with React and THREE.js to showcase developer journey to **25,000+** visitors.
- **Modeled, UV mapped and texture baked all 3D assets** in Blender to ensure a memorable user experience.
- Designed interactive frontend components in React/Figma to showcase a unique personality through design language.

ARcademy | *JavaScript, React, Figma, TailwindCSS, C++, Arduino, Blender, Echo3D, WebXR, GPT-4*

- **First Place Overall, IgnitionHacks 2023**: Awarded **$1,300 in prizes** out of **308 participants**.
- Developed an AR-based learning platform for kinesthetic learners with interactive 3D simulations and gesture-controlled lessons using **Arduino, Mobilenet-SSD, and WebXR.**
- Designed all front-end assets in Figma, React, TailwindCSS, and Blender; integrated an AI assistant with ChatGPT API.

Bloomscroll | *TypeScript, Python, React Native, Node.js, Expo, MoviePy, Pexels API, GPT-4, ElevenLabs API, Nativewind CSS*

- **Submitted to Deltahacks 2025**
- Architected and launched an **LLM-powered, educational video generator mobile app** in under 24 hours.
- Optimized content delivery by implementing **video preloading on scroll**, reducing user-perceived wait times by **65%+**.
- Built an **AI-automated video editing pipeline** integrating Pexels API for footage, ElevenLabs for audio, Whisper for timestamping, and MoviePy for video concatenation.
- Developed a fully responsive mobile frontend using **React Native and Expo**, delivering a seamless UI across devices.

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript/TypeScript, SQL, HTML5/CSS3

Frameworks: React, React Native, Expo, Vue, Vuex, WebSockets, Vite, TailwindCSS, Bootstrap, THREE.js, Spring Boot, Thymeleaf, STOMP.js

Developer Tools: Git, Postgres, MongoDB, Docker, AWS, Postman, Cloudflare Workers, LucidChart, Figma, Blender, IntelliJ, VS Code, Cursor

REFERENCES   *Available upon request*