Joseph Wu

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EDUCATION

Bachelor of Science — Computer Science *Expected 2026*
University of Auckland

- Relevant coursework: Data Structures & Algorithms, Software Engineering, Databases, Operating Systems

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, SQL, HTML, CSS
Frameworks: React.js, Node.js, Express.js, Tailwind CSS
Databases: PostgreSQL, SQLite
Tools & Practices: Git/GitHub, REST APIs, Agile Development, Responsive Web Design

PROJECTS

Web3 — Crypto Wallet Search System *WDCC Team Project | 2025 (2 semesters)*
React.js, TypeScript, Tailwind CSS • github.com/UoaWDCC/web3

- Rebuilt the existing frontend alongside another engineer, implementing tasks assigned by the tech and project leads within an 8-person Agile team
- Currently building an admin-facing backend feature for token-based QR code check-in/attendance tracking
- Took part in regular sprint planning, code reviews, and check-ins with the project lead to relay progress and clarify requirements

Trip Planning Website *Personal Project | 2025 – Present*
React.js, Node.js, Express.js, PostgreSQL

- Building a full-stack travel planning app enabling destination search and personalised itinerary creation (in development, running locally; not yet deployed)
- Designed the PostgreSQL schema and RESTful API layer (Node.js/Express) for managing itinerary and destination data
- Building out interactive maps and hotel booking features; authentication not yet implemented

Badminton AI — Shuttlecock Detection & Match Analysis *Personal Project | 2025 – Present*
Python, YOLOv11, OpenCV, PyTorch, Ultralytics, NumPy • github.com/Wuuuuu5/badminton-ai

- Building a computer vision system to detect and track shuttlecocks in badminton match footage, using a custom-trained YOLOv11 model
- Curated and labeled a custom dataset of 8,000+ images across varied lighting, motion blur, and camera angles for training
- Achieved 0.76 mAP50 on shuttlecock detection despite motion blur and variable lighting/camera angles
- Designing the pipeline to support rally length, shot placement, and player movement analysis from raw video

Stop-Scrolling Chrome Extension *Hackathon Project | 2025*
Chrome Extension (Manifest V3), TypeScript, Google OAuth2, Supabase

- Built a Chrome extension in a team to detect and interrupt Shorts/Reels/TikTok-style infinite scrolling
- Owned the detection logic, identifying short-form video feeds within the browser to trigger the extension's intervention
- Collaborated with the team on Google OAuth2 authentication and Supabase-backed data storage

LEADERSHIP & EXTRACURRICULARS

- Team Captain & Head Coach, Badminton (National Level) — led a national-level team for 3 years; designed training programmes over 2 years
- Team Captain, Valorant Esports — coordinated strategy and communication for a competitive team