Tsz Ho (Patrick) Ma

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TECHNICAL SKILLS

Languages: Java, SQL, Go, JavaScript, TypeScript, Python, PHP, R
Frameworks: React, Next.js, NestJs, Angular.js, JQuery
Developer Tools: Docker, Git, Linux-based DevOps

EDUCATION

University of British Columbia - GPA: 4.33/4.33   Kelowna, BC
Bachelor of Science in Computer Science, Minor in Data Science   *2020 – 2025*
- Dean's List (2020 - 2025) and Recipient of 2021 DVC Scholarship Award

PROJECTS

Atlas Portfolio | *React, Tailwind, MaterialUI, Framer-Motion, Docker*   Oct 2024 – April 2025
- Designed and deployed a personal portfolio to showcase academic and professional achievements, enhancing visibility to potential employers and collaborators
- Built with a focus on UI polish and animation for a modern first impression, resulting in positive recruiter feedback during screenings.
- Set up automated deployment pipelines and system updates, ensuring consistent and secure delivery with zero downtime

HelpMe System | *Next.js, NestJS, PGVector, LangChain, Docker*   Sept 2024 – April 2025
- Co-developed an AI-assisted learning platform now actively used in multiple university courses, improving access to academic resources for 400+ students
- Engineered a document embedding workflow to eliminate duplicate data, increasing system efficiency and search accuracy
- Improved system responsiveness via real-time updates and data caching, reducing user wait time during peak usage by 20%
- Led accessibility and UI standardization efforts, increasing usability for diverse student groups
- Maintained system quality with continuous testing and CI/CD integration, minimizing production bugs

Edu-Val LMS | *Node.js, Express.js, MikroORM, PostgreSQL*   May 2024 - Feb 2025
- Delivered a peer-review platform now used in university settings, streamlining the student feedback process
- Promoted to leadership role on client's dev team due to consistent delivery and initiative in design discussions
- Architected microservices for key functions including authentication and external API integration, ensuring reliability under scale
- Set up reverse-proxy and load balancing infrastructure, improving system availability and fault tolerance
- Wrote thorough documentation and testing coverage, enabling smooth onboarding and handover to future developers

EXPERIENCE

TA of The Capstone Project for Computer Science Majors   Sept 2024 – April 2025
The University of British Columbia   *Kelowna, BC*
- Conducted In-Person meeting sessions with 15+ Capstone teams on a bi-weekly basis to provide technical advice and assess general project management strategies during the previous sprint(s)
- Grade GitHub project management structures of 27 teams, including code review quality, clean branching strategies, and GitHub Issue and Pull Request management with the use of GitHub Projects as a Kanban Board
- Collaborate with faculty and students to ensure alignment between technical solutions and project goals, fostering best practices in agile development and software delivery

TA of Computer Programming I and II   Sept 2023 – April 2024
The University of British Columbia   *Kelowna, BC*
- Teaching students about fundamental Computer Science concepts such as the principles of Object Oriented Programming, Binary I/O, Recursion, and Data Structures Using Java
- Instructing and guiding multiple lab sections of 20 students each through weekly assignments and providing any assistance and support needed
- Grading labs and discussion posts, and providing helpful feedback to nurture an inquisitive mindset