Zipeng Liu

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linkedin.com/in/zipeng-liu | github.com/zipeng-liu | Portfolio: zipeng.vercel.app

Education

British Columbia Institute of Technology – Diploma in Full-Stack Web Development — June 2025
University of Toronto – Honors Bachelor of Science in Statistics, Minor in Economics — June 2023

Experience

Business Intelligence Developer (Internship) — May 2023 – Aug 2023
National Capital Commission — Ottawa, ON

- Built a REST API pipeline with service principal authentication to automate Power BI usage tracking across 100+ enterprise licenses, eliminating all manual review;
- Delivered interactive Power BI dashboards that identified 20%+ of licenses as underutilized, directly informing stakeholder resource reallocation decisions;
- Redesigned a PeopleSoft survey page in Application Designer used by 500+ employees, improving navigation and accessibility.

Projects

Personal Safety Mobile App — zipeng.vercel.app/project/1

- Trained a TensorFlow risk-scoring model on 28,000+ real crime records, deployed on AWS to generate lower-risk routes between user-entered start and destination locations;
- Implemented interactive crime mapping in React Native and TypeScript, allowing users to tap map pins for incident details across iOS and Android;
- Integrated Google Maps API to render safer routes and provide step-by-step directions from model-generated coordinates, giving users actionable navigation output.

SQL Learning Platform Web App — zipeng.vercel.app/project/2

- Designed a 20+ table relational schema modeling students, teachers, classes, exercises, and progress relationships, managed via Drizzle ORM for efficient querying and schema updates;
- Engineered authenticated backend APIs with Bun and Hono, supporting role-based access for teacher and student platform features;
- Enabled in-browser SQL practice with React, TypeScript, and MySQL, giving students real-time query feedback without local setup.

Farmer Marketplace Web App — zipeng.vercel.app/project/3

- Architected a server-rendered MVC app with Node.js, Express, and TypeScript, cleanly separating customer and vendor workflows for maintainability;
- Constructed a customer preorder flow in EJS supporting 4 core actions: cart updates, pickup scheduling, order history, and inventory-aware ordering;
- Developed vendor product management features for listing creation, detail updates, and preorder availability control, giving farmers full ownership of their storefront.

Technical Skills

Languages: Python, Java, TypeScript, JavaScript, C#, PHP
Frameworks/Libraries: React, React Native, Next.js, Node.js, Express, Django, Spring Boot, ASP.NET Core, Entity Framework Core, Tailwind CSS, Bootstrap, Prisma ORM, Drizzle ORM, Jest, Expo, Hono, Bun, EJS
Databases: PostgreSQL, MySQL, MongoDB, SQLite
Tools/Platforms: Git, Docker, AWS, GitHub Actions, Postman, Jira
Software Practices: OOP, Design Patterns, MVC, REST APIs, CI/CD, Agile/Scrum, TDD