

# JUTIPONG PUNTULENG

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## SOFTWARE ENGINEERING STUDENT

Final-year Software Engineering student with strong experience in backend and full-stack development. Skilled in building REST APIs, optimizing database performance (up to **75%** faster queries), and designing efficient system architecture. Contributing to **VeloSim**, a real-world bike network simulation platform built with **BIXI Montreal**. Expanding knowledge in cloud platforms and modern DevOps practices to build scalable, production-ready systems.

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## EDUCATION

### Bachelor of Software Engineering

Concordia University, Montreal, QC

*Expected Graduation: April 2026*

**Relevant Coursework:** Data Structures & Algorithms, Database Systems, OOP, Cloud Computing, Agile Development, Operating Systems

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## TECHNICAL SKILLS

- **Languages:** Python, JavaScript, TypeScript, Java, HTML/CSS
  - **Frameworks:** React, Next.js, Node.js, Express.js, Django REST Framework, FastAPI, Flutter, GraphQL
  - **Databases:** PostgreSQL, MySQL, MongoDB, Firebase Firestore
  - **Tools & Cloud:** AWS, Docker, Git, GitHub Actions, CI/CD, Vite, Tailwind CSS
  - **Practices:** Agile/Scrum, TDD, REST API Design, Code Review, Pre-Commit Hooks
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## PROJECTS

### Healthcare Management System — *Django, React, TypeScript, MySQL*

- Built a full-stack healthcare platform managing **447 patient records** and **303 staff accounts**
- Implemented **JWT authentication** with role-based access control for admin, doctor, and staff workflows
- Optimized database queries by **75%** (from 3s → 0.7s) via indexing, caching, and improved schema
- Designed REST API with **15+ endpoints** powering analytics dashboards
- Added automated code quality checks using **13 pre-commit hooks**

### VeloSim – Bike Network Simulator (In Progress) — *Python, React, PostgreSQL*

- Contributing to an 11-person team building an open-source simulation platform with **BIXI Montreal**
- Implementing WebSocket connections for live simulation updates and data streaming
- Writing unit tests and performing code reviews in weekly Agile sprints
- Collaborating on architecture decisions, schema migrations, and data visualization

### Real-Time Auction Platform — *React, Firebase, JavaScript*

- Built a real-time bidding platform for Hand in Hand Myanmar charity event
- Implemented **live Firestore synchronization** for instant updates across users
- Designed admin dashboard with CRUD operations and a multi-image upload gallery
- Added lightweight guest authentication using localStorage for improved UX

### Campus Navigation App — *Flutter, Google Maps API*

- Developed cross-platform mobile app achieving **95% location accuracy**
  - Integrated Google Maps API and optimized navigation paths, reducing travel time by **30%**
  - Implemented real-time geolocation, building data, and interactive UI components
  - Set up CI/CD pipeline with automated testing and GitHub Actions
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## LANGUAGES – **Thai:** Native, **English:** Fluent, **French:** Intermediate