Tarit Witworrasakul

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EDUCATION

University of British Columbia   September 2023 – May 2028
Bachelor of Science in Computer Science with minor in Commerce   *Vancouver, BC*
- Outstanding International Student Award

WORK EXPERIENCE

CPSC 310 Undergraduate Teaching Assistant   September 2025 – April 2026
University of British Columbia   *Vancouver, BC*
- Worked as part of a teaching team supporting 461 students in the Introduction to Software Engineering course
- Facilitated labs and office hours to review group project progress and help students debug TypeScript projects
- Graded written assignments and addressed spec-related and technical questions on Piazza

Software Engineer Co-op   May 2025 – August 2025
Agoda Services (subsidiary of Booking Holdings Inc.)   *Bangkok, Thailand*
- Improved Cashback processing logic by querying additional data from the booking team's GraphQL API and adding validation logic, automating cases that once needed manual review
- Resolved 3 production bugs by updating C# API query logic and adding retry logic with fallback flags to conform with booking team's API spec for older bookings, improving Cashback page user experience
- Restored and stabilized previously flaky Cashback integration tests by integrating MockAPI endpoints
- Addressed security vulnerabilities by upgrading dependencies, including Jest and internal Playwright E2E test wrappers, and fixing CI pipelines to ensure tests run on every pull request
- Developed a load testing suite using Grafana k6 with randomized input data, simulating up to 500 req/sec to proactively validate system performance before new feature rollouts

Software Developer Intern   June 2024 – August 2024
Applicad Public Company Limited   *Bangkok, Thailand*
- Analyzed the sales team's needs for a customer identification solution, defining essential functionalities and designing user flows in collaboration with a UX/UI designer to develop a Figma prototype
- Developed a real-time facial recognition web application using Next.js, featuring a user interface for customer identification with 95% accuracy via webcam, along with an admin page for managing customer data
- Built a backend service in Python with FastAPI for face vector comparison using ChromaDB, integrated with a PostgreSQL database for storing user data, and linked it to the existing internal customer database
- Implemented role-based access control using NextAuth with JWT sessions and email OTP login, with token verification handled via Next.js middleware
- Deployed the application and databases to an on-premises Ubuntu server using Docker and Docker Compose

TECHNICAL EXTRACURRICULARS

UBC Uncrewed Aircraft Systems Design Team - Software Developer   September 2023 – July 2025
- Contributed as part of a 60+ member engineering team to develop autonomous drones, achieving 2nd place at the Aerial Evolution Association of Canada 2025 competition
- Migrated 15+ endpoints in MissionPlanner-Scripts, an API that connects backend system and ArduPilot, to a cross-platform architecture using Pymavlink, eliminating reliance on Windows-only MissionPlanner client scripts
- Created OpenAPI Specifications and Postman collections to facilitate team collaboration and API integration
- Built a target-detection pipeline using a fine-tuned YOLOv8 model with tiled inference
- Developed a dataset generation tool with OpenCV and imgaug, reducing manual data labeling requirements

nwHacks 2024 - Software Developer (Honorable Mention Award)   January 2024
- Created WasteWizard, a full-stack web application for waste tracking and management in hospitals
- Developed backend using Express.js and MongoDB to manage cleaning logs and provide data for admin dashboard
- Deployed the application on Azure VM, enabling public access with HTTPS through Caddy web server

TECHNICAL SKILLS

Languages: Python, TypeScript, Dart, C, C++, C# Java, Golang, R, HTML, SQL
Libraries & Frameworks: React, NextJS, OpenCV, Huggingface, Pandas, NumPy, FastAPI, Streamlit, Gradio, Flutter, Arduino, Echo, JUnit, Swing
Developer Tools: Git, GitHub, GitHub Actions, Linux, Docker, Docker Compose, Postman, VS Code, IntelliJ, Cloudflare, Firebase, Google Cloud Platform, Microsoft Azure, Supabase, Vercel, ChromaDB, PostgreSQL, HAProxy