

Thinh Tran

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TECHNICAL SKILLS

Programming: Java, C/C++, Python, JavaScript, TypeScript, HTML/CSS, SQL (PostgreSQL), NoSQL (JSON-based, MongoDB), RISC-style Assembly, Unix/Bash, PowerShell

Frameworks & Libraries: Next.js (App Router), React, Node.js, Pandas, NumPy, Matplotlib, Agile/Scrum, JUnit

Developer Tools: Git, GitHub, Google Cloud Platform, VS Code, IntelliJ, Eclipse, Vercel, ESP-IDF (CMake, Ninja Build System, FreeRTOS)

Operating Systems & Data Tools: Linux, MacOS, Windows, Microsoft Office (Excel: VLookup, Pivot Tables)

EDUCATION

York University

Toronto, ON

Bachelor of Arts in Computer Science

Sep. 2024 – May 2028

Relevant Coursework: Advanced Object-Oriented Programming, Data Structures & Algorithms, Computer Architecture & Organization, Software Tools, Database Management Systems, Software Design, Calculus I-II, Elementary Probability, Linear Algebra

PROJECTS

Music Video Analytics Web App | *Next.js, TypeScript, YouTube Data API, Vercel*

Jan. 2026 – Present

- Built a full-stack web application that tracks and ranks and filters 100+ music videos using a RESTful external API (YouTube Data API), enabling exploration of views, publish dates, and channel metadata.
- Prepared future structure to reduce API calls and quota usage by 90% using JSON snapshot-based data storage.
- Added graceful fallbacks to ensure the application has 100% UI availability during API rate limits or partial data failures.
- Implemented server-side API routes to securely manage API keys and prevent client-side exposure of sensitive credentials.
- Implemented server-side data fetching with centralized request handling and error recovery to reduce redundant API calls and maintain reliability under API quota limits.
- Used GitHub for version control and iterative development, managing features and fixes through structured commits.

ESP32-C3 Dev Board | *RISC-V Assembly, C, CMake, FreeRTOS, NinjaBuild*

Sep 2025 – Dec 2025

- Engineered firmware for ESPIDF Dev Board to drive WS2812 LED blink cycles using RISC-V Assembly alongside C language
- Created the logic behind ALU Operations for the mini SRC CPU to control different instruction types (jump, branch, return, etc.) using registers and focusing on memory allocation and pipelining knowledge to maximize efficiency
- Controlled hardware timing and execution flow with FreeRTOS task delays and RMT-based LED strip driver
- Verified hardware functionality on a physical development board, demonstrating embedded debugging and hardware-software integration skills

EXPERIENCE

Inventory Management Associate

Apr. 2025 – Present

Aritzia DC03

Vaughan, ON

- Leveraged warehouse management systems(WMS), barcode scanning, and Excel/CSV reporting for precise stock control
- Managed real-time inventory tracking, SKU accuracy, and stock reconciliation in a high-volume warehouse environment, exceeding KPI expectations up to 200%
- Implemented cycle counting, variance reporting, and quality checks to maintain data integrity across stored goods