THARUNKAARTHIK GOPINATH

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Technical Skills

- Languages: Python, Java, JavaScript (ES6+), C, SQL
- Frameworks: FastAPI, HTML/CSS, Swing
- Databases: PostgreSQL, SQLite
- Tools: Git, Docker, Linux
- Concepts: Data Structures & Algorithms, REST APIs, OOP

Education

Bachelor of Computer Science, Honours Computer Science Co-op Sep 2024 - Sep 2028
University of Windsor • Windsor, Ontario

- Major Average: 93%
- Awards: Dean's Honor Roll, Presidential Level Entrance Scholarship

Projects

Model Router AI (Python, FastAPI, HTML/CSS/JavaScript) | Github
Feb 2026

- Derived client-side metrics from structured backend API responses to calculate routing efficiency and tier distribution
- Owned frontend architecture for a real-time LLM routing dashboard, visualizing routing decisions, confidence scores, latency, and escalation state
- Implemented Server-Sent Events (SSE) streaming to render token-by-token model responses with live metadata updates while maintaining responsive UI performance
- Integrated multiple API modes (standard, streaming, analysis-only) with structured loading, error, and retry states, ensuring consistent UX across asynchronous request flows

Emplates Chrome Extension (JavaScript, HTML5, CSS3) | Github
Dec 2025

- Built a Chrome extension (50+ installs, 5-star rating) that injects reusable email templates into Gmail and Outlook DOM
- Used MutationObserver to handle dynamic DOM updates in SPA environments
- Implemented local template persistence using Chrome Storage API with asynchronous CRUD operations
- Designed modular content script architecture separating DOM injection from state management

Java Math Game (Java, Swing API) | Github
Oct 2025

- Built a modular, event-driven desktop application using Java Swing and CardLayout to manage multi-screen navigation (start, setup, gameplay, summary)
- Implemented multiple game modes (timed, sudden-death, lives-based, custom-length) with state management tracking player turns, lives, and scoring logic
- Designed local multiplayer with leaderboard sorting using custom Comparators and used javax.swing.Timer to handle timed gameplay without blocking the UI thread

Competitions

ICPC Regional Competitor (2nd Place) Nov 2024
University of Windsor • Windsor, Ontario

- Led a 3-member team to solve complex, timed algorithmic challenges using Python
- Secured 2nd Place within University of Windsor in the 2024 ICPC East Central NA qualifiers and advanced to Regionals

American Computer Science League (National Finalist) Aug 2022 - May 2024
West Chester, Pennsylvania

- Competed in 4 national-level contests on CS topics and programming challenges (number systems, logic circuits, data structures)
- Qualified for the National All-Stars round by ranking in the top 20% of competitors nationwide

Leadership/Work Experience

Teaching Assistant Sep 2025 - Present
University of Windsor's Computer Science Department (COMP-2650) • Windsor, Ontario

- Led labs and problem-solving sessions covering Boolean algebra, circuit minimization, combinational/sequential logic, and flip-flop/register design
- Assisted 100+ students in analyzing synchronous vs asynchronous circuits, state transitions, counters, and register-transfer logic (RTL)
- Evaluated assignments for logical correctness, circuit optimization, and architectural reasoning related to CPU components (ALU, memory, control flow)

First-Year Representative & Board Member Oct 2024 - Oct 2025
University of Windsor's Computer Science Society • Windsor, Ontario

- Collaborated with leadership to represent 700+ students, gathering feedback to improve department initiatives
- Co-organized large-scale technical events, including the WinHacks Hackathon and workshops on Git & LeetCode, fostering a community of continuous technical learning

Certifications

- AWS Certified Cloud Practitioner: Foundational knowledge in Cloud Architecture/Scalable Infrastructure