Haoqian (Frank) ZHANG
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EDUCATION

University of Toronto   **Scarborough, Canada**
B.S. in *Computer Science (Honors, Co-operative) – Software Engineering Stream*   **Sep.2021-April.2026**
- Minor in Statistics
- **Overall GPA**: **3.55/4.00; Major GPA: 3.75/4.00**
- **Core Courses**: *Software Engineering, Data Structures, Computer Organization, Regression Analysis, Intro to Databases(Also be TA 3 times), Intro to Machine Learning and Data Mining, Computer Networks, Operating Systems, Compilers & Interpreters, Algorithm Design and Analysis, Engineering Large Software*
- **Honor:** Dean's List (Twice)   May.2022 & Oct. 2025

SKILLS

Languages: Java, C, C++, C#, Python, R, JavaScript, HTML, CSS, SQL
Database: MySQL, NoSQL (MongoDB, MarkLogic), Firebase, PostgreSQL
Frameworks and Tools: Sprint Boot, Node.js, React, AngularJS, Express, GitHub, GitLab, CI/CD, Docker, Postman

WORKING EXPERIENCE

Scholars Portal (U of Toronto St. George)   *Sep.2023 – Sep.2024*
Software Development Engineer Intern   Toronto, Canada
- Designed and implemented a web application called ORCID with Angular, JavaScript, HTML+CSS to improve user experience by enabling document searches and integrating API calls.
- Developed automated scripts using Java to identify and correct incorrect documents by comparing databases and integrating pipelines using GitLab, ensuring the system operational efficiency.
- Managed the loading of data into MarkLogic using Apache NiFi, automating process and enhancing the loading efficiency by 78%. Handled XML data and ensured smooth integration with the MarkLogic development environment.

PROJECT EXPERIENCE

Bioline Database (Apache NiFi, Shell use, MarkLogic, XML, Java)
Team leader of 3, Designer, Developer   *Dec.2023*
- Configured and managed Apache NiFi workflows to **automate data loading and distribution** into MarkLogic database, significantly improving the efficiency of data handling and processing across various systems.
- Handled **XML file transformations**, ensuring smooth integration with the MarkLogic environment, while optimizing data retrieval, storage, and query performance for enhanced project outcomes.
- Documented and optimized NiFi templates, automating complex data pipelines to ensure reliability, while reducing manual intervention and improving overall system performance.

Humanly AI-Assisted Certification Platform(React, Typescript, Node.js, PostgreSQL, Docker, Redis)
Team member of 2, Design, Developer   *Jan.2023 – April.2023*
- Developed a system to analyze **human-AI collaboration patterns** in writing, focusing on solving the problem of identify the percentage of human-made text.
- Designed metrics that capture **human and AI interation (prompt iteration, suggestion rejection, post-AI editing)** in AI-assisted workflows.
- Built UI components that enforces explicit human review of AI-generated context before incorporation.

ORCI Web Development (Angular, JavaScript, TypeScript, HTML+CSS)
Team member of 3, Design, Developer   *Jul.2023 – Sep.2023*
- Developed a feature-rich web application using the Angular framework for the ORCID project, allowing users to search for and retrieve document metadata seamlessly.
- Integrated RESTful APIs to enhance data retrieval efficiency, ensuring real-time updates and smooth user interaction. Implemented dynamic forms and services to handle user input and feedback, for seamless user experience across devices.
- Designed a responsive and user-friendly interface with CSS and HTML, optimizing for both functionality and aesthetics.