Nathanael Yao

647-832-8496 | Markham, Ontario | nathanael.yao123@gmail.com | linkedin.com/in/nathanaely | github.com/nathanaelyao

EXPERIENCE

TELUS   Toronto, Ontario
Research Intern (Mitacs Funded)   *May 2024 – December 2024*
- Collaborated with TELUS engineers to develop an inline code documentation generation tool using GenAI.
- Used Tree-sitter and Python to parse and extract code elements, enabling support across multiple languages.
- Designed prompt templates using Jinja2, and used OpenAI and TELUS GenAI APIs to generate documentation.
- Integrated the tool into a GitLab CI/CD pipeline, automating documentation generation on merge request events.

VisaPlace   Toronto, Ontario
Software Engineer   *September 2021 – January 2023*
- Developed a chatbot that evaluates immigration eligibility using the Botpress API, ReactJS and JavaScript.
- Created decision tables using the Gandalf API and AngularJS to score users based on their responses.
- Provided personalized feedback and product recommendations for high-scoring users on a results page.
- Integrated the chatbot with Salesforce, sending user data and querying records with SOQL.
- Built an agent-facing Salesforce widget using Lightning Web Components to enable human-in-the-loop support.
- Used Apex to dynamically display data for the current user in the background, streamlining agent workflows.
- Leveraged PHP, CSS, and JavaScript to build reusable and configurable Elementor Widgets for WordPress.

Mesh AI   Kingston, Ontario
Software Engineer Intern   *March 2021 – August 2021*
- Contributed to the development of a Home Health Care product for physician appointment scheduling.
- Designed and developed reusable Vue.js components, collecting feedback from regular meetings with physicians.
- Assisted in migrating from Firebase to AWS Amplify to ensure HIPAA compliance.
- Configured AWS AppSync GraphQL schema with authorization rules to enforce team-level access control.

EDUCATION

Queen's University   Kingston, Ontario
Master of Science, Computer Science   *September 2023 – June 2025*
- CGPA: 4.24/4.30, Member of Kaloom-TELUS industrial research chair in DevOps.
- Research Assistant in the MASE lab (Supervised by Dr. Juergen Dingel).
- Graduate teaching assistant for Software Requirements, Formal Methods and Programming Language Processors.

Queen's University   Kingston, Ontario
Bachelor of Computing, Honors, Specialization in Software Design   *September 2019 – April 2023*
- CGPA: 3.92/4.30.
- Education Director at Queen's Web Development Club and Junior Android Developer (Contract) at Betalab.

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript, TypeScript, HTML/CSS, PHP, Apex, SQL, SOQL, GraphQL, Bash
Frameworks & Libraries: Next.js, React, React Native, Angular, Vue.js, Lightning Web Components, OpenAI
Cloud & Storage: AWS Amplify, Amazon S3, Amazon RDS (PostgreSQL), AWS Appsync, Firebase
DevOps & Tools: GitLab CI/CD, Docker, Android SDK, RESTful APIs, Unix/Linux, TDD, Jira
Fluent in: English, French, Mandarin Chinese

PROJECTS

SEC Filings App | *React Native/Expo, TypeScript, SQLite, Cheerio, REST APIs*   View Project
- Developed a mobile app to visualize company financial trends and quarterly 13F filings from institutions.
- Used the SEC EDGAR API and Cheerio to fetch data and used SQLite for local storage to reduce API calls.
- Designed and built reusable components with React Native and TypeScript.

Train-e | *Next.js, TypeScript, GraphQL, Amazon S3, Prisma, Amazon RDS (PostgreSQL)*
- Contributed to the development of an e-training website for an insurance client using Next.js and TypeScript.
- Designed GraphQL APIs with queries and mutations and used Prisma to connect with PostgreSQL database.
- Used Amazon S3 for logo image storage, enabling admins to easily upload and display custom branding.