

Henry Zhang

+1-647-971-0788 h783zhan@uwaterloo.ca hz757 hz757 henryz.dev

EDUCATION

University of Waterloo

Honours Bachelor of Computer Science (Co-op)

Relevant Coursework: Object Oriented Programming, Data Structures, Algorithms, Operating Systems

Waterloo, ON

Sep 2020 - Apr 2024

WORK EXPERIENCE

Microsoft

Software Engineer Intern

Vancouver, BC

Jun 2022 - Sep 2022

- Developed Latency, Reliability and Availability Telemetry and dashboards for Outlook using C# and the ASP.NET framework.
- Collected GraphQL error info of API endpoints serving over 350 million users using Azure Application Insights Telemetry.
- Reduced noise on existing reliability monitors for GraphQL and JSON Endpoints by 98.8% after adding error categorization.
- Cut loading time by 90% on existing Jarvis Dashboards by creating pre-aggregate functions to replace database queries.
- Implemented latency tracers using the .NET ITracer Interface to track latency of internal API Gateway operations

Arctic Wolf

Software Developer Intern

Waterloo, ON

Jan 2022 - Apr 2022

- Eliminated security gaps by developing a data cross-referencing service to identify and classify client devices using Elasticsearch.
- Shortened onboarding process for new enterprise customers and increased security coverage by developing Python scripts for automating onboarding workflow tasks.
- Built customizable report generation template for security metrics using Django.

University of Waterloo

Software Developer Intern

Waterloo, ON

May 2021 - Aug 2021

- Designed and developed Secure File Sharing web application allowing users to share files with a key that is not reused or stored.
- Deployed web app and real-time database using Firebase and node.js and integrating Google Drive API and Microsoft Graph API.
- Implemented APIs for file sharing and account maintenance features using Express.js.
- Added support for the file sharing service to support file sharing using Google Drive and Microsoft OneDrive.

PROJECTS

Stock Market Sentiment Analysis

sentiment-index.netlify.app

Tech Stack: TypeScript, React, MongoDB Atlas, co:here NLP, Heroku, Redis, Netlify CMS, Chart.js

- Constructed model measuring market sentiment using co:here natural language processing APIs on media articles and reddit posts
- Created customizable data visualization of market sentiment over time using Chart.js

CourierU

courieru.herokuapp.com

Tech Stack: MongoDB Atlas, Bootstrap, Mapbox, Radar.io, JavaScript, git, Node.js

- Engineered a service for foodbanks to coordinate deliveries to those in need during the COVID-19 Pandemic by receiving requests and then mapping out efficient delivery routes for drivers
- Featured in the MLH blog: stories.mlh.io/5-awesome-hacks-you-can-make-with-radar-1b3f76dc7ea9

TECHNICAL SKILLS

- **Languages:** Python, C# JavaScript, TypeScript, C++, C, SQL, GraphQL, HTML, CSS
- **Framworks and Libraries:** .NET, Node.js, Express.js, Next.js, React.js, Vue.js, jQuery, Tailwind, NumPy, Electron, Flask
- **Databases:** MongoDB, Firebase, SQL, KQL
- **Tools and Technologies:** Git, Docker, JIRA, Azure DevOps, NetlifyCMS, Vercel, Postman, Linux, Jenkins, AWS, Microsoft Azure