Matt Zhang

✉ matt@zhang.software

⬀ zhang.software

○ mzhang

🎓 EDUCATION

University of Waterloo

Bachelor of Software Engineering (BSE)

2020 - present

GPA: 4.0

💼 PROFESSIONAL EXPERIENCE

Fullstack Developer

Immigrate.ai

Dec 2021 - present

- Created **React Native** cross-platform chatbot portal with **Rasa** resolving **87%** of user inquries
- Authored full-featured task management platform in **React** now in use for **12** internal teams
- Optimized rendering & memoization reducing API calls by **28%** and load time by **32%**
- Implemented traveling salesman heuristic to reduce average case runtime by **27%**

Fullstack Developer

Imagine Communications

May 2021 - Sep 2021

- Built management dashboards for **10+** top international TV broadcasters using **AngularJS** and **Vue**
- Triaged & fixed critical authentication bugs in **C#** backend blocking **35%** of users from using products
- Reduced complexity and file size of product deployment by **63%** using **WebSockets** and **RabbitMQ**
- Launched data aggregation pipeline to normalize **PostgreSQL** databases reducing storage requirements by **25%**

📁 PROJECTS

DoxMy.Tech 🔗

- Built web app using **React** and **Flask** with **PostgreSQL** database for social media analytics
- Created **REST**ful API to aggregate social media data for sentiment analysis and entity recognition with **90%** accuracy
- Deployed data pipelines to clean and standardize data, reducing server response time by **32%**

watNext 🔗

- Developed **React/Express/Node.js** web app to connect users and boost productivity
- Implemented **JWT**-based authentication using **MongoDB** to store user profiles
- Memoized expensive functions and API calls, shortening load times by **28%**

Sir Goose Bot 🔗

- Authored moderation tools in **Typescript** for UWaterloo-affiliated Discord bot serving **10000+** users & **20+** communities
- Integrated **OAuth** with **MS Graph API** to verify **8000+** student identities

Jeorje Proof Checker 🔗

- Designed & implemented scanner, validator and checker for mathematical proofs in **C#**
- Modified **Shunting-Yard** algorithm to parse n-ary inputs, reducing time complexity from **cubic** to **constant**

GrammarHammer 🔗

- Engineered device to deliver physical feedback based on **NLP** analysis
- Integrated Microsoft **Azure**'s speech-to-text to transcribe speech in real time
- Trained **ML** model to verify grammatical correctness with **80%** accuracy

🌐 LANGUAGES

Javascript | Typescript | Python

C# | C++ | Java | HTML/CSS | SQL

TECHNOLOGIES

React | Angular | Vue | React Native | Next.js

MongoDB | PostgreSQL | Node | Express | Flask

React | Angular | Vue | React Native | Next.js

MongoDB | PostgreSQL | Node | Express | Flask