Matt Zhang

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🎓 EDUCATION

University of Waterloo

Bachelor of Software Engineering (BSE)

2020 – present | GPA: 92.1%

💼 PROFESSIONAL EXPERIENCE

Fullstack Developer

Immigrate.ai

Dec 2021 – Apr 2022

- Created **React Native** cross-platform NLP chatbot portal with **Rasa** resolving **87%** of user inquiries
- Authored full-featured task management platform in **React** to empower & organize **12** internal teams
- Optimized rendering & memoization, reducing API calls by **28%** and load time by **32%**
- Implemented travelling salesman heuristic to reduce average runtime by **27%**

Fullstack Developer

Imagine Communications

May 2021 – Sep 2021

- Built management dashboards for **10+** top international TV broadcasters using **Angular** and **Vue**
- Triaged & fixed critical authentication bugs in **C#** that blocked **35%** of users from accessing 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%** and query time by **33%**

🌐 LANGUAGES

Javascript | Typescript | Python | C# | C++

Java | HTML/CSS | SQL

📁 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 linear

GrammarHammer 🔗

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

🧠 TECHNOLOGIES

React | Angular | Vue | React Native

Next.js | MongoDB | PostgreSQL | Node

Express | Flask