

# Matt Zhang

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## 🎓 EDUCATION

### University of Waterloo

*Bachelor of Software Engineering (BSE)*

2020 - present | GPA: 92.2%

## 💼 PROFESSIONAL EXPERIENCE

### Fullstack Developer

*Immigrate.ai*

Dec 2021 - present

- Created **React Native** cross-platform chatbot portal with **Rasa** resolving **87%** of user inquiries
- 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%**

## 🧠 TECHNOLOGIES

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

MongoDB | PostgreSQL | Node | Express | Flask

## 📁 PROJECTS

### DoxMy.Tech 🔗

- Built web app using **React** and **Flask** with **PostgreSQL** database for social media analytics
- Created **RESTful** 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

### Georje 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