

# Zhiyuan Ma

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## EDUCATION

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### North Carolina State University, Raleigh

Aug 2021 - May 2023

Master of Computer Science, GPA: 4.0

### Tongji University, Shanghai

Sep 2014 - Jul 2018

Bachelor of Science, Bioinformatics, GPA: 85/100

- The First Prize of Tongji Scholarship of Excellence in the 2016-2017 academic year
- Tongji University Students Innovation Training Program First Prize

## SKILLS

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### Programming Languages

Java, Ruby, JavaScript, Python, R, C++, SQL, Shell script

### Frameworks and Tools

Rails, Git, Node, React, Vim, TensorFlow, Spring Boot, JDBC, Ansible

### Databases

MySQL, Oracle, MongoDB, PostgreSQL

## WORK EXPERIENCE

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### Software Engineer Intern, Toshiba Global Commerce Solutions, NC

Jun 2022 - Aug 2022

- Worked with quality manager, maintained and upgraded an internal level 3 IT support tool to show summaries and details of products' defects, bugs, security issues to software development team, using **Node.js** and **Python**
- Found and fixed bugs, set up cron jobs, added charts to show details of defects including customer, assignee, state, description, time for ELERA platform, and added charts to show percentages and number changes

## PROJECTS

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### Discord Piazza Bot

Mar 2022 - May 2022

- Developed a Discord bot to interact with users with data from Piazza course, using **Node.js** and **Python**
- Designed the architecture, divided requirements into use cases and developed the program in Agile process
- Used discord.js and Mongoose to build the backend, and the test coverage achieved 87% as measured by c8
- Collected Piazza data using Python and stored in MongoDB, used **Ansible** to implement CI/CD

### Course and Enrollment Management System

Jan 2022 - Feb 2022

- Designed and developed a course and enrollment management application with a MVC architecture
- Created **REST APIs** with **Ruby on Rails**, and imported **Bootstrap** and **jQuery** as the front-end libraries
- Reviewed teammates' code, tested with **RSpec**, managed data through **PostgreSQL** and deployed on Heroku

### Customer Feedback Collection Website

Dec 2021 - Jan 2022

- Developed a web app for companies to collect feedback using **Node.js**, **React**, **Express** and **Redux**
- Integrated Passport.js, Google OAuth 2.0, Stripe, SendGrid to conduct authentication, payments and emails
- Managed data on **MongoDB** through Mongoose and deployed on Heroku

### Bear Maps Web Server

Feb 2021 - Mar 2021

- Developed the back end of the web map application of the city of Berkeley using **Java**
- Implemented an **Autocomplete** system for users to search locations by creating a customized **Trie**
- Developed the shortest path finding function by implementing Dijkstra's algorithm and **A\* search algorithm**
- Tested with **JUnit**, built with **Maven** and deployed on a **Ubuntu** server