# Tianqi (Matthew) Zhang

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# **Education**

#### University of Michigan, Ann Arbor

September 2017 – April 2021

Bachelors's Degree, College of Engineering

Major in Computer Science, minor in Material Science and Engineering

Related Coursework:

Intro to Operating Systems

- Database Management Systems
- Data Structures and AlgorithmsDifferential Equations
- Intro to Computer Organization
  Discrete Mathematics

# **Experience**

# Star Charge, Wanbang New Energy Investment Group

May 2019 - August 2019

Data Engineer Intern

- Retrieved and analyzed data using SQL querying to identify stations of our competition that had the greatest daily average users, so we could increase our own user count and growth.
- o Programmed with Java and SQL to query data from MySQL database and MongoDB.
- o Researched and experimented with CovenantSQL database for possible enterprise usage.
- o Achieved a peak daily user of 60,000 and total revenue exceeding RMB1,000,000 by the end of August.

# University of Michigan Intelligent Ground Vehicles

August 2018 - April 2019

Controls Team Programmer

- Wrote path-finding algorithm with input from robot LiDAR to compute path to travel along a white line.
- o Simulated and tested the algorithm using ROS Software in Linux environment.

# **SOCR Big Data and Predictive Analytics Team**

November 2019 - Present

Incoming Research Student

- Will join research team of Professor Ivo Dinov regarding big data analytics.
- o Team will develop online toolbox to enhance the visual presentation and interpretation of Big Data.

# **Projects**

#### Alexa BlueBus Skill - U-M Makeathon 2019

February 2019

- Designed and implemented an Alexa skill to check and plan commute of buses.
- o Computed walking distance of user to bus stop using Google Maps' API and AWS Lambda.
- Team received first place in the two-day Makeathon competition.

#### Personal Webpage - zhangtia.github.io

September 2019

- Wrote and deployed a personal webpage to apply front-end knowledge.
- Created with React bootstrap and Javascript and deployed with Github pages.

#### Skills

• Languages: C++, C, Java, SQL, Python, Javascript, MATLAB, R, LATEX

Tools: Xcode, VSCode, Intellij IDEA, Navicat, Sublime Text

Database Management: MySQL, MongoDBCloud-based Tech: AWS Lambda, Docker

#### **Others**

- Breakdancer on Element One dance club
- Soccer midfielder on CSSA soccer team
- Fluent in English and Mandarin