# Minzhi Chen (Benjamin)

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#### **SUMMARY**

Seeking a software engineering internship position in Summer 2021. Expected to start in May/June 2021

#### **EDUCATION**

University of Michigan, Ann Arbor, MI

Expected Dec. 2021

• M.S. in Computer Engineering; GPA: 3.78/4, Courses: Database Management Systems, Software Engineering **Bucknell University**, Lewisburg, PA

May 2019

B.S. in Electrical Engineering, Minor in Mathematics; GPA: 3.72/4 (Magna Cum Laude)

## **SKILLS**

- Programming Languages: Java, Python, SQL, JavaScript (JSX), Bash, HTML/CSS, Julia, C
- Databases and Cloud: MySQL, SQL \*PLUS, MongoDB, AWS EC2
- Frameworks and Libraries: Linux, CLI, React, Spring, Hibernate, Android, PyTorch

# **PROJECTS**

#### Job+: AWS based Web Service Development - Job Recommendation (https://github.com/MinzChen/jupiter)

- Developed an interactive web page for users to search and apply positions online (HTML, CSS, JavaScript, AJAX)
- Improved personalized position recommendation based on search history and favorite
- Created three Java servlets with RESTful APIs to handle HTTP requests and responses
- Created MySQL database on Amazon RDS to store position data fetched from GitHub API
- Used MonkeyLearn API to extract keywords from description of positions and designed algorithms (e.g., content-based recommendation) to implement job recommendation
- Deployed to Amazon EC2 for more visibility and better performance

## Hermes: a Spring and Hibernate based Shopping and Ordering system

- Built a web application based on Spring MVC to support item search and listing (dependency injection, inversion of control, REST API etc.)
- Implemented security workflow via in-memory and JDBC authentication provided by Spring Security
- Utilized Hibernate to provide better support of database operations
- Developed a Spring Web Flow to support item ordering

#### Starlink: React JS based Starlink Trajectory Visualization

- Designed and developed a visualization dashboard using ReactJS and D3 to track satellites in real-time based on geo-location
- Built location, altitude, and duration-based selector to refine satellite search
- Animated selected satellite paths on a world map using D3 to improve the user friendless

# FakeBook: a relational and NoSQL database based Social Network

- Designed a "Fakebook" relational (Oracle SQL) and NoSQL database (MongoDB) for Social Network from public datasets and built a Java application for a friend recommendation
- Implemented SQL queries in JDBC to select and organize the data for multiple needs
- Exported Oracle SQL data using JSON into MongoDB, and implemented queries using JavaScript
- Created a MapReduce program in MongoDB to find city-average friend count and count of users born in each month.

## **INDUSTRY EXPERIENCE**

# Montage Technology Inc., Software Engineer Intern, San Jose, CA

Jul. 2019 – Aug. 2019

- Developed an application using MNIST handwritten digit database with NumPy and upgraded with Convolutional Neural Network in TensorFlow to maximize the recognition accuracy rate of a digital handwriting recognition system to around 98.2%
- Contributed to a 20% increase of performance metrics through the optimization of latest deep learning algorithm and methods

## Lenovo US, Data Analyst Intern, Morrisville, NC

Jul. 2018 – Aug. 2018

- Built an interactive GUI application (via QlikView) to process and visualize global sales data in batches
- Facilitated the team onboarding of this application via demo and suggested reduced the time of data processing by 50+% through the switch from manual analysis to team-wide adoption of this app

### Microsoft, Software Engineering Intern, Shanghai, China

May 2016- Jun. 2016

- Deployed the machine learning and object detection model behind How-Old.net and Microsoft Face APIs on Azure
- Designed a demo using C# to predict a person's age alongside my Coca-Cola bottle based on picture posted by user