

# Yi Ding

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## EDUCATION

### Northeastern University

Sep 2022--Dec 2024

**Degree:** Master's Degree of Science in Computer Software Engineering

**Relevant Courses:** Natural Language Processing, Database Systems, Design and analysis of Algorithms, Web Design/User Experience, Fundamentals of Distributed Systems, Program Structure and algorithms

### University of California, Davis

Sep 2017--Jun 2021

**Degree:** Bachelor's Degree of Art in Applied Math

**Relevant Courses:** Computers in Technology, Machine Learning, Algorithm Design and Analysis, Operating Systems & System Programming, Computer Architecture

## SKILLS

**Language:** Python, Java, JavaScript, C/C++

**Database:** SQL/ NoSQL, Redis, RethinkDB, MongoDB

**Frontend:** Bootstrap, Vue.js, React.js, Backbone.js

**Backend:** Node.js, Spring boot, Distribution system, JQuery, socket.io, cryptoJS, Django, Kafka

## WORK EXPERIENCE

### Menusifu Inc

Nanjing

Software Engineer Intern

May 2022--Aug 2022

- Constructed and refined a large-scale online food ordering platform with over **1,000,000** registered users across **25** regions in China
- Engineered the front-end section of the customer-facing application with **React.js** provided the ability for customers to add/delete products according to discount
- Consolidated back-end logics and deployed server routes with **Node.js** and **Express.js**, and delivered online Payment Module with the integration of TLS and Stripe API
- Applied load balance with **Linux Virtual Server (LVS)** and **Nginx** to disperse users' requests to a Server cluster, increase daily activity up to **30,000**, the cumulative users are **20,000**, and the QPS reaches **200/s**
- Integrated **Mutex** with **SETNX in Redis** and added in **Memcache** to reconstruct the system and solve cache penetration and cache avalanche issues, improved system availability by **200%**

### Bank of Beijing

Nanjing

Data Intern

Jun 2018--Sep 2018

- Reorganized **Hadoop**, **Kafka**, **Cassandra**, and **Storm** to develop a lambda architecture that enables real-time big data processing
- Designed and structured **SQL** statement to query ad update over user data to produce **Node.js** to implement remote calling of PRC interfaces supplier cost, reducing the response time of multiple interfaces to **less than 1 second**
- Utilized **Random Forest**, **Decision Tree**, and **Neural Network** to train a model to help identify customers' qualifications for credit cards, and used ensemble modeling to help improve the efficiency by **13%** and accuracy by **19%**
- Formatted pre-heating process of uploaded files with the **FTP** server to achieve hierarchical **CDN**(Content Delivery Network) push, and improve the cache hit ratio by **34%**

## PROJECTS

### Covid-19 Data Source

Nanjing

Web App

Mar 2021

- Launched a Covid-19 tracker web application with **Vue.js**, and **Node.js** to check world cases and recovery, specific country report
- Optimized MySQL Database with **Dense Index** and **Query Caching** to shorten single query time by **71%** and consolidated the Recommender System with matrix factorization and neural networks
- Implemented **Google Map API** for a live interactive bubble world map

### To-Do Lists

Nanjing

Web App

Nov 2020

- Developed the web stack of To-do lists with **Flask**, **Backbone.js**, and **RethinkDB** as the database
- Implemented **Backbone.js** to enable user initialized and modified connects between listing text
- Minify the code with **Closure Compiler**, **JSMIn**, and **Uglify** to reduce page load time by **30%**