

Jiayi (Jacey) QIAN

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SKILLS

Programming Languages: Python, Java, C, C++; **Web:** React; **Database:** SQL

EDUCATION

Dartmouth College | *Master of Engineering Management (MEM)* Expected Dec 2020

*A collaborative program taught by faculty from the **Thayer School of Engineering** and the **Tuck School of Business**

Zhejiang University | *Bachelor of Engineering, Computer Science, GPA: 3.86/4.00* June 2019

Key Courses: Data Structure & Algorithm Analysis, Object-Oriented Programming, Artificial Intelligence, Database Systems, Software Engineering, Operating Systems, Computer Architecture, Discrete Mathematics, Linear Algebra, Regression Analysis, Mathematical Finance

National University of Singapore | *Exchange Program, Concentrations in statistics and computing* Dec 2017

WORK EXPERIENCE

Mercuria Energy Trading S.A. | *Data Analyst Intern, Hard Commodities Team* July 2019 - Sep 2019

- Developed an analytical tool using **Python** to extract and analyze daily exhaust emission data of over 300 ferrous metal companies from 20 province-level websites
- Estimated and tracked the national iron-ore market demands and presented as weekly reports to senior analysts

China Media Capital Inc. | *Research Intern, Strategic Investment Dept.* July 2018 - Sep 2018

- Identified, analyzed and automated monthly talent pool and latest news updates for mobile and cinema industries using web crawlers in **Python** saving 5 hours each month for the team
- Interviewed financial directors of invested social media accounts to keep track of their operations and economic conditions; presented results to higher management
- Facilitated communication with an outsourcing company; kept track of timelines and progress of the internal information platform project and ensured its completion in 2018

Acies Technology LLC | *Quantitative Research Intern* Jan 2018 - Mar 2018

- Utilized **Python** to clean and process large datasets; analyzed changes in sectors and industries with clustering methods
- Assisted traders to optimize and improve strategies by carrying out backtesting and result analysis
- Designed an algorithm of generating random trading signals using tree structures

RESEARCH & PROJECTS

Factorization Machine and its Application in Recommendation System Paper

- Designed a new factorization machine (FM) model based on attentional neural network in **Python**
- Enhanced the prediction rate compared to the original and exhibited robustness in real-life scenarios

Emotion-Based Music Recommendation – Student Research Training Program, Zhejiang University

- Developed a neural network model with a music data set containing 50,000 records and improved the model's accuracy rate to 86%
- Presented the outcome in a platform evaluating songs based on emotional indicators

School Educational Management System Project – Software Engineering

- Led a team of four students and was responsible for the User Information Management subsystem
- Developed the system using **React** and **Django** REST framework with team members
- Created and executed unit test plans

Mini SQL Database – Database Systems

- Developed a single-user SQL database-management system with two team members using **Java**
- Built a catalog manager to manage data formats and optimized index using a B+ tree structure
- Supported 3 data types -- int, string and float, and SQL operations like record insertion, deletion and query

Vocabulary Learning Website -- B/S Architecture Design

- Developed a vocabulary website using **Bootstrap** and **Django**
- Designed a dashboard to support users with recording vocabulary learning history and plans