Hazel Bing

(646) 387-1570

hbing024@gmail.com • linkedin.com/in/huizibing

Education

Columbia University, New York, NY   09/2016 - 02/ 2018
Master of Science in Operations Research
Wuhan University, Wuhan, China   09/2012 - 06/2016
Bachelor of Arts in Financial Engineering

Skills

Programming Languages: Python (Numpy, Pandas, Sklearn, Flask), Java, SQL, R, JavaScript (Node.js, Vue.js)
Tools: HTML, CSS, Tableau, MySQL/PostgreSQL, MongoDB, AWS EC2, Github

Projects

Course Registration System (Full-stack Web Development)
- Designed and implemented a full-stack course registration application from scratch, using React.js for frontend and Spring/Hibernate for backend; Deployed the application to AWS EC2
- Created REST APIs for supporting lose-coupling communications between front-end and back-end system
- Designed E-R diagrams and relationships of database and improved query performance by using indexes
- Integrated the system with Hibernate for back-end development

Amazon Clone (Full-stack Web Development)
- Developed an Amazon Clone website using Node.js, Vue.js, MongoDB database and deployed on AWS
- Built a consumer front end with product listing, product featuring section, product filtering sidebar, search bar as well as navigation menu
- Created REST APIs to handle asynchronous HTTP requests and responses using Axios (Vue.js)
- Implemented authentication in signup and login API using JSON Web Token (JWT) and bcrypt-nodejs library
- Used MongoDB as backend storage for product, category and owner information; used Stripe API to retrieve payment information

Movie Recommendation (Big Data processing)
- Developed a recommendation system using MovieLens Dataset, with 26 million ratings on 45,000 movies
- Built an ETL pipeline to conduct online analytical processing (OLAP) on movie rating data using PySpark
- Designed a collaborative filtering algorithm based on similarity score and developed user-based approaches to handle system cold-start problem
- Conducted model hyper-parameters tuning and monitored data processing performance on AWS

Work Experience

Morgan Stanley, New York, NY   08/2018 - Current
Data Analyst
- Work in Risk Management department responsible for designing interactive dashboards for traders, risk managers and C-level management, showing PnL, trend analysis and stress loss
- Retrieve and process data using Python; use MySQL for data storage and aggregation
- Implement Python API to retrieve data from various source systems and display on reporting dashboards
- Work with various groups (traders, compliance and IT) on providing ad hoc analysis and business support

Forwardlane, New York, NY   05/2017 - 08/2017
Data Science Intern
- Evaluated portfolio's performance using efficient frontier generated by Monte Carlo simulation; computed ex-ante analytics using Smart Risk APIs to understand portfolio structure
- Worked with Bloomberg ETF database using SQL Server and categorized ETFs by K-means cluster method
- Conducted stock prices prediction from Yahoo stock screener and sent to a phone number via smtplib
- Optimized portfolios and developed real-time automatic recommender based on clients' risk preference
- Implemented NLP techniques to create Q&A database from Morningstar, Bloomberg news