

MAY QI-MEI LAI

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EDUCATION

University of Pennsylvania – Master of Computer Information Technology (CGPA: 4.0) United States, expected May 2025

- Courses: Computer & Network Security (C, Python, JavaScript), Internet and Web Systems (Java), Computer Systems Programming (C/C++), Data Structures & Algorithms (Java), Databases & Information System (SQL), Machine Learning (Python), Wireless Communications (C/C++)

The University of Hong Kong - Bachelor of Economics and Finance (CGPA: 3.75, Top 5%) Hong Kong, Sep 2012-Jul 2015

- Honors: First Class Honor; Dean's Honors List; Beta Gamma Sigma Member; HKU Foundation Scholarship for Outstanding Mainland Students and HKU Worldwide Scholarship (No. 1 in University Entrance Examination in Guangdong Province)
- Academic Exchange: **University of Virginia** (Aug 2013-Dec 2013), **Peking University** (Sep 2011-Jul 2012)

PROFESSIONAL EXPERIENCE

University of Pennsylvania - Teaching Assistant, Database and Information Systems United States, Dec 2023-Now

- Addressed student queries on course content, designed and graded database exercises, focusing on ER modeling, SQL, and NoSQL
- Mentored students in full-stack course projects involving technologies like React, Node.js, Express.js, MySQL, Oracle, MongoDB, and Neo4j
- Conducted research on the academic use of generative AI technologies and their performance in database solutions

Nomura - Debt Capital Markets Vice President Hong Kong, Dec 2018-Dec 2023

- Managed the origination and the execution of 50+ bond, loan and liability management transactions
- Proposed bespoke liability management and bond offering solutions to 100+ Asian SSAs, corporates and financial institutions
- Performed financial modelling, credit analysis for rating advisory, covenant analysis for deal structuring and pricing analysis
- Arranged investor marketing and IR programs for 50+ corporate issuers and facilitated investor communications

BNP Paribas - Debt Capital Markets Associate, IBD Digitalization Team Lead Hong Kong, Jun-Aug 2014 & Jul 2015-Dec 2018

- Managed the execution of 40+ public bond transactions, raising \$50bn+ for sovereign and FI issuers in Asia
- IBD SharePoint Website: Led a team of 6 to design and build IBD SharePoint website for knowledge sharing with information security control
- Online Deal-log Platform: Conducted user experience research and led the digitalization of the department's deal-log process

PROJECT EXPERIENCE

Restaurant and Service Recommendation Platform (JavaScript, MySQL, React, MUI, Express.js, Pandas, Python, AWS S3)

- Developed a Yelp-like recommendation website, supported by a database of 150k+ businesses, 6m+ reviews and ~2m users
- Implemented a client-server architecture combining a React-based frontend with an Express.js backend, and employed AWS RDS for hosting a MySQL database, ensuring robust and scalable performance
- Managed large-scale data processing and cleaning using Pandas in Python, compressing the initial 9GB+ dataset to 6GB
- Spearheaded database relational design, set up database on AWS RDS, optimized 20+ MySQL queries to 1s runtime and established API endpoints in Express.js for dynamic data querying and handling
- Supported frontend development using React, integrating Material UI for UI components and Google Maps API for location-based services

Seckill High Concurrency Online Shopping System (Java, HTML/CSS, MySQL, Redis, Spring Boot, MyBatisPlus, XML, JMeter)

- Built a full-stack web service for online limited-time offers, capable of handling 100K queries per second, optimizing order and stock management with traffic control, caching and page staticization
- Implemented AJAX-based frontend user login and shopping interface, managed backend database (users, products, orders) with MySQL and executed CRUD operations with Java, Spring Boot, and MyBatisPlus
- Managed high concurrency user login and order placement with Redis on Linux and conducted pressure testing with JMeter

Movie Chatbot Script Recommendation System (Java, JSoup, HTML/CSS)

- Developed a Java-based chatbot application that learns from 100+ movie scripts to interact with users
- Created a ScriptCrawler with JSoup for systematic extraction and organization of movie scripts from various websites, and implemented Huffman Coding for script storage, achieving 30%-50% compression compared to the original script size
- Designed a reply recommendation system leveraging TFIDF Relevance, incorporating dynamic optimization based on user feedback

Penn-themed Web Photo Editor (JavaScript, HTML/CSS, React, JIMP, Node.js)

- Developed a JavaScript-based full-stack web application for image editing, featuring 10+ unique Penn-themed editing enhancements
- Constructed a user-friendly frontend with React and HTML/CSS, integrated JIMP in Node.js for backend functions, enabling stickers, filters, frames, and image upload/download, all themed around UPenn

ENTREPRENEURSHIP

FoodRocks Ltd. (Lunch delivery start-up) - Chief Operating Officer Hong Kong, Oct 2014 – Jul 2015

- Managed a team of over 15 on daily operation, standardizing operations to improve lunch set distribution efficiency by 50%, and directed website design, marketing, and partnerships based on market research

OTHER SKILLS & INTERESTS

- Language: Native in Cantonese and Mandarin, fluent in English (TOEFL 112)
- Technologies: Proficient in Java and Python; familiar with C/C++, SQL, JavaScript, HTML/CSS, Linux, Docker, AWS, MySQL, Pandas, PyTorch, NumPy, Matplotlib, React, Node.js, Express.js, Spring Boot, MyBatisPlus, JMeter, Git/Github