Qingyu(Adina) Zhu

adinazhu.com | in qingyuz | (412) 209-9517 | qingyu.zhu@west.cmu.edu | Mountain View, CA

EDUCATION

Carnegie Mellon University, Silicon Valley — *Mountain View, CA*
Master of Science in Electrical and Computer Engineering, Major GPA: 3.8/4.0 — *08/2019 - 12/2020*

The University of Hong Kong — *Hong Kong, China*
Master of Science in Computer Science, Major GPA: 3.6/4.3 — *09/2017 - 05/2019*

Nankai University — *Tianjin, China*
Bachelor of Engineering in Software Engineering, Major GPA 3.8/4.0 — *09/2012 - 06/2016*

WORK EXPERIENCE

Inspur USA — *Bellevue, WA*
Software Engineer Intern — *06/2020 - 08/2020*

- Worked with the AI team for several machine learning projects, which are core components of a distributed SQL database.
- Developed a real-time **anomaly detection system** in Python for monitoring distributed database performance; Leveraged Facebook's Prophet and LSTM to identify anomalies in streaming metrics from Kafka. The system effectively predicts distributed database failures up to **5 minutes ahead with a precision of 94%.**
- Implemented an ensemble machine learning model for credit card fraud detection using auto-sklearn library; Integrated the pre-trained model into PostgreSQL as a user-defined function and deployed it on AWS. Achieved **98% accuracy** and **91% AUC**.

Home Credit — *Tianjin, China*
Test Analys — *11/2016 - 06/2017*

- Constructed an efficient ETL pipeline in Oracle SQL to quantify personal credit information and collect statistics such as loan default rates. The pipeline handles data from **10,000 clients per day** and produces daily metrics.
- Refined the credit-scoring model by adding fingerprinting features, **increasing estimation accuracy by 10%**.
- Enhanced a real-time loan application system with **50 million active users** by testing and delivering **20+ APIs** in Java.
- Worked with senior engineers, data analysts, and product managers to optimize system performance and scalability.

ChinaSoft International — *Tianjin, China*
Software Engineer Intern — *06/2014 - 09/2014*

- Independently built a web-based sports social networking software that is also supported in the Android operating system. The application helps people find sports partners with MVC framework and **40+ functions**, e.g., profile pages, chat rooms, posting.
- Conducted **full-stack web development** in **Java**; Implemented front-end using HTML5, CSS, JavaScript, Ajax to active page interaction and reduce page loading time; Created back-end server with MySQL, MVC framework, J2EE, and Apache HTTP server.
- Designed and implemented the Android mobile app using multiple layouts, Adapter, Gson and JSON.

SELECTED PROJECTS

Investment Recommendation System — *08/2018 - 05/2019*

- Built an investment recommendation system in Python on top of a Twitter sentiment analyzer and a price prediction model.
- Created a new end-to-end Twitter sentiment analyzer with **NLP** by collecting and preprocessing massive text data from various online sources, and extracting Twitter keywords with the TF-IDF algorithm.
- Trained futures' price prediction model using SVM, Random Forest, Decision Tree with **10-year daily price data** and **56K+ tweets text data**; **Improved 27%** in prediction accuracy and **36%** in trading profitability by tuning SVM hyperparameters.

Android Mobile Security Application — *11/2017 - 01/2018*

- Developed an Android mobile application in Java from scratch to raise public awareness of telephone deception.
- Created a removable pop-up window to display a graphic warning message using Picasso and WindowManager libraries.
- Boosted application performance by designing **SQLite databases** to store and cache users' contact lists and blacklists locally; Improved user experience by using RecyclerView to display an extensive collection of data.

Web Proxy Server with Caching — *11/2019 - 12/2019*

- Designed and developed an **HTTP/1.0** web proxy server in C to handle multi-threading requests with the Pthreads library.
- Boosted proxy performance by introducing an **LRU cache** with a Double LinkedList and a mutual exclusion lock.

SKILLS

Programming Languages Python, SQL, C/C++, Java, JavaScript, HTML/CSS
Frameworks & Softwares AWS, Docker, Linux, Git; Scikit-Learn, PyTorch, Tensorflow; Spring MVC