# Qingyu(Adina) Zhu

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#### **EDUCATION**

Carnegie Mellon University Silicon Valley	Mountain View, CA
Master of Science in Electrical and Computer Engineering	08/2019 - 12/2020
The University of Hong Kong (Overall GPA: 3.6/4.3)	Hong Kong, China
Master of Science in Computer Science	09/2017 - 05/2019
Nankai University (Overall GPA: 3.3/4.0, Junior Year GPA: 3.8/4.0)	Tianjin, China
Bachelor of Engineering in Software Engineering	09/2012 - 06/2016

#### SELECTED PROJECTS

# Model Extraction Attacks Against Machine Learning Models(Ongoing)

Mountain View, CA

Carnegie Mellon University Silicon Valley

09/2019 - Present

- Worked in a team of 2 to build a simulated Machine-Learning-as-a-Service(MLaaS) using Python.
- Used 4 datasets to train SVM-based and Convolutional Neural Network-based classifiers in PyTorch.
- Implemented attacks on classifiers by extracting model parameters and hyper-parameters.
- Evaluated the attacks based on monetary value, time value, and explored responding countermeasures.

### **Investment Recommendation System**

Hong Kong, China

Graduate Dissertation, The University of Hong Kong

09/2018 - 05/2019

- Implemented a futures recommendation system with Scikit-Learn library and SVM algorithm in Python.
- Extracted futures Twitter keywords with **TF-IDF** algorithm, created Twitter sentiment analysis model using **NLTK**.
- Increased system profitability by 36% based on 10-year daily price data and 56,000 tweets.

## **Data Visualizations for Food Culture**

Hong Kong, China

The University of Hong Kong

02/2018 - 05/2018

- Led a team of 3 to develop a data visualization web exploring U.S. food culture based on Yelp & USDA datasets.
- Applied **Tableau** and **D3.js** to interpret textual, temporal, geospatial, multivariate and hierarchical data.
- Got A+ (Top 2% of the class). Web link: http://adinazhu.com/websites/Food-Culture-Website/index.html.

### **Business Intelligence System**

Tianjin, China

Undergraduate Dissertation, Nankai University

12/2015 - 05/2016

- Created a web-based BI system to extract association rules from FoodMart dataset in Java.
- Built a multidimensional data visualization tool using **D3.js**, **JSON**, designed a data warehouse supporting **OLAP**.
- Developed front-end in HTML, JSP, and back-end with SQL Server, J2EE, Spring MVC framework.

#### **WORK EXPERIENCE**

#### **Home Credit Consumer Finance China**

Tianjin, China

Online UW Tester

11/2016 - 07/2017

- Collaborated with IT teams to test and deploy 10+ auto-evaluation modules for online loan applying systems.
- Monitored daily loan default rate based on personal data and credit record extracted from **Oracle(SQL)** databases.
- Upgraded risk prediction model by adding 3+ new factors, achieved 10% accuracy improvement with Python.

### **ChinaSoft International Ltd**

Tianjin, China

Java Software Engineer Intern

06/2014 - 09/2014

- Worked in a team of 4 to build a social networking website & Android app helping people find sports partners.
- Completed 12,000 + lines of Java code to perform 40+ functions including add friends, chat online, search info.
- Modeled a database schema, established the database using MySQL, used JDBC to connect MySQL.
- Implemented front-end in HTML5, CSS, JSP and back-end server using Spring MVC framework in J2EE.

# **SKILLS**

Frameworks & Tools: Docker, Linux, Git; Scikit-Learn, PyTorch; Tableau, D3.js; Spring MVC, MySQL Programming Language: (Proficient) Python, Java; (Familiar) C++, C, JavaScript, HTML, CSS