510-365-4988 | mgj9993@gmail.com | http://mingujo.github.io | 2225 Channing way, Berkeley CA 94704

#### **SKILLS**

Languages: Python, Go, Scala, SQL, Java

Frameworks & Libraries: Apache Spark, Hive, Airflow, HDFS, Kubernetes, AWS(EMR, DynamoDB, Terraform,

RDS), Snowflake, Bigquery, Concourse, TensorFlow, Redis, Celery, ElasticSearch

Technical Concentrations: ETL • Distributed data processing • Streaming • Data Warehousing • SQL • NoSQL SOA • Hadoop Ecosystem • Analytics • ML • NLP

# **EDUCATION**

# University of California, Berkeley

Class of 2016

B.A. in Computer Science, Statistics, and Economics

# **WORK EXPERIENCE**

# **Software Engineer** | Opendoor, San Francisco CA

Mar 2018 - Present

- Developed in-house distributed batch data processing and scheduling system (Airflow + Spark + Kubernetes) which serves 100+ Opendoor engineers and processes ~1000TB of real estate data daily
- Led and executed Spark cluster migration from in-house Kubernetes to AWS EMR
  - o Reduced fixed platform cost on data engineering by 38%
  - o Enhanced reliability of Spark streaming and batch jobs by 20%
  - o Expedited batch processing jobs by 40%
- Built in-house observer system to regularly validate quality of ingested data and alert for freshness SLA violation
- Improved usability of Opendoor data lake (S3) by installing external Hive Metastore

## **Software Engineer** | Leadgenius, Berkeley CA

Jan 2017 - Jan 2018

- Built an automatic sales outreach email reply labeling application to serve 50+ customers from scratch
  - o Classified email replies in 7 different labels by applying NLP algorithms
  - o Alerted customers of positive replies in real-time by deploying a trained model on a server
    - ⇒ Overall Accuracy: 92.8% (Accuracy on positive reply: 89.2%)
    - ⇒ Increased returning visitor rate of the company's outreach product by 72%
- Developed an ETL processing pipeline to store 25+ mil U.S. based company and 30+ mil professional data from a variety of sources
- Indexed and stored merged data by designing data deduplication algorithm
- Implemented distributed search for database of 25+ mil company data using ElasticSearch

## **Research Assistant** | Berkeley Institute of Data Science, Berkeley CA

Jan 2016 – Dec 2016

- Implemented data ingestion pipeline of 5000+ movie review data into S3 via web scraping framework
- Trained binary sentimental classification model to label user reviews using Bag of Words model

#### PROJECT EXPERIENCE

## UC Berkeley Family Housing - Open House Scheduling Calendar

Fall 2016

• Developed a calendar web app using Rails to serve 15+ UCB housing staffs for coordinating open house schedules with 30+ resident assistants. Automated email notification for any schedule changes.

### Kaggle Challenge: Rossmann Drugstore Store Sales Prediction

Spring 2016

• Used and compared 3 different machine learning algorithms to forecast drugstore daily sales: multivariate linear regression, random forest regression, and gradient boosting with regression trees