

# Guoxin Sun

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## EDUCATION

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### University of California, San Diego

2018-2020

Master of Science in Computer Science

La Jolla CA

- Core Courses: Data Mining & Predictive Analysis, Large-Scale Database and Warehouse, Algorithm Design and Analysis, Neural Networks/Pattern Recognition, Statistical NLP, Recommender Sys & Web Mining.

### Virginia Tech

2014-2018

Bachelor of Science in Computer Science, Minor in Mathematics

Blacksburg, VA

- Phi Beta Kappa
- Core Courses: Software Design, Machine Learning, Data Analytics & Visualization, Professionalism in Computing, Cloud Software Development, Multimedia/Hypertext, Comparative Languages, Technical Writing, Public Speaking.

## WORK EXPERIENCE

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### Huawei Technical Service Co., Ltd.

5/30/2021-6/01/2023

Full-time Advisory Engineer

Shanghai, China

- Contributed to the development and maintenance of software solutions.
- Created models for high-quality business analysis and insights.
- Developed data processing tools for wireless products, improved serviceability, and promoted the implementation of tools.

## RESEARCH/PROJECT EXPERIENCE

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### Portfolio Optimization Based on Reinforcement Learning

02/2022-07/2022

Independent Research

Shanghai, China

- Built quantitative tools to estimate asset-pricing models, asses financial risk, and manage portfolios using investment theory.
- Developed a portfolio optimization model using Twin Delayed Deep Deterministic Policy Gradient.

### E-Commerce Shopping Website

08/2020-12/2020

AWS Big Data Project

La Jolla, CA

- Created an Order History App using Kinesis Data Streams, Lambda, and DynamoDB.
- Achieved Product Recommendations using Kinesis Data Firehose, S3, and EMR.
- Set up Transaction Rate Alarm to deal with unexpected rate of orders.
- Established Near-real-time Log Analysis using Kinesis Data Firehose and Elasticsearch Service.
- Practiced Data Warehousing and Visualization.

### Twitter Data Analysis

01/2019-08/2019

Independent Research

La Jolla, CA

- Developed a scalable pipeline using Java and Play Framework.
- Solved the asymmetric problem of producers and consumers by implementing a high performance parallel data fetching system using RabbitMQ.
- Performed sentiment analysis with NLP and various Machine Learning models.
- Built a web UI that communicates with backend RESTful APIs to visualize data.
- Fulfilled database design in MySQL to store and retrieve analytic results.

### Global Event and Trend Archive

01/2018-05/2018

Undergraduate Capstone Project

Blacksburg, VA

- Designed and implemented a distributed system to extract and parse the URLs in Tweets using Java, Python, Spark, Scala, Hadoop, and bash.
- Boosted retrievable URLs by 20% using Wayback Machine.
- Conducted a systematic URL analysis on different characteristics in URLs with Python and Tableau.

## SKILLS & CERTIFICATES

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- Proficient in Python, C, Java, R, SQL, Shell; PySpark, Hadoop, Scala, AWS, and MongoDB.
- Skilled in data mining, analysis, and visualization; NLP and Recommendation Systems.
- Solution Architect Associate - AWS; Data Engineer – DataCamp; Senior Data Scientist – DASCA (expected Jun. 2023).