

# Haitie Liu

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## DATA SCIENTIST

Passionate data scientist specializing in machine learning and big data analytics, seeking to leverage a robust analytical background and business acumen to drive data-driven decision-making in the tech industry.

## EDUCATION

**Southern Methodist University | Expected Dec 2024**

Master of Science in Data Science, GPA: 4.0

**University of Washington | Aug 2018**

Bachelor's degree in business administration

## CERTIFICATION

[Harvard's CS50 Artificial Intelligence Certificate](#) | [Both JP Morgan and Goldman Sach's Excel Skill for Business Certificate](#)

[Tableau Desktop Specialist](#)

## CORE COMPETENCIES

Programming Languages	Data Analysis & Viz	ML & AI	Soft Skills
Python	Excel	TensorFlow	Communication
R	Tableau	Scikit-Learn	Teamwork & Collaboration
SQL	PowerBI	PyTorch	Interpersonal Skills

## RELATED EXPERIENCE

### Data Analyst, Spotify Music Analysis

- Utilized Spotify's API and Python's libraries to handle a dataset of 1 million rows and 20+ columns.
- Managed data storage and analysis on Azure warehouses, establishing database schemas and using SQL for extensive data handling, improving data handling efficiency by 25%.
- Applied machine learning techniques, including multiple linear regression within Azure, to develop a formula for predicting popularity, achieving a 15% higher accuracy than previous models.
- Developed an R Shiny application for dynamic visualization of music market trends, blending complex statistical data with interactive features for user engagement.

### AI Scientist, Traffic Sign Recognition

- Built and trained a Convolutional Neural Network (CNN) using TensorFlow to classify 43 types of traffic signs, using over 60,000 images from the German Traffic Sign Recognition Benchmark (GTSRB) dataset.
- Applied advanced techniques such as max pooling and dropout in neural network architecture to enhance training efficiency.
- Utilized OpenCV for high-quality image preprocessing and data augmentation, significantly increasing the model's robustness.
- Experimented with various neural network architectures and parameters, optimizing for accuracy, and achieving a 96% accuracy rate in traffic sign classification.

## WORK EXPERIENCE

### Graduate Study Researcher & Teaching Assistant

Southern Methodist University, Dallas, TX

April 2023 – Present

- Conduct weekly office hours for a class of 20 students, assisted students in mastering statistical and machine learning concepts through hands-on workshops.
- Collaborate with faculty in the creation of tutorials covering linear regression, multi-linear regression, logistic regression, classification, and machine learning models including Knn and decision trees.
- Develop and lead Python workshops, focusing on practical Python applications and machine learning models.
- Design, craft, and grade exams and quizzes, ensuring the curriculum remains current and effectively assesses student comprehension.

### Sales Associate

Volvo USA, Houston, TX

March 2020 – Feb 2023

- Managed client relationships, contributing to a yearly revenue of over half a million dollars.
- Conducted product presentations, showcasing of product features, and effectively communicating their value to clients.
- Collaborated with a diverse cross-functional team to meet sales targets and enhance customer satisfaction.

## COMMUNITY SERVICE

**Volunteer Video Technician**, faith Lutheran church Bellaire (Houston, TX)

March 2020 - March 2023

- Oversaw Weekly live streaming and video production, employing technical skills to enhance service quality and community engagement.
- Collaborated with church staff to coordinate event coverage and content distribution, demonstrating strong teamwork and communication skills.