

# TIEN NGUYEN

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## Summary

Master's degree holder with 1+ years of experience in data analysis, business impact assessment, and workforce optimization. Working knowledge of Python, SQL, and Tableau, with hands-on contributions to impactful projects at Tesla and NASA.

## Experience

### NASA Ames Research Center

Mountain View, CA

Research Analyst

Jan 2024 - Present

- Developed a **Python-based** game theory negotiation model for aircraft routing in both two-party and multi-party scenarios.
- Conducted a **sensitivity analysis** with **300+ runs** using **combinatorics of input variables** and created **data visualizations** to assess trajectory efficiency and conflict resolution effectiveness.
- Reduced **extra distance required to resolve conflicts by 25%** through negotiated solutions, based on initial sensitivity analysis results.
- Presented research at DASC 2024; **awarded 2nd place Best of Conference**.

### Tesla, Inc.

Sparks, NV

Data Science Intern

Jul 2023 - Jan 2024

- Created content quality reporting and course duration parsing using **Python** and **SQL** across **4 data sources**, enabling accurate training estimations and scalable compliance checks.
- Built **optimized ELT pipelines** that improved **data processing speed 100x**, accelerating refresh cycles for critical dashboards.
- Executed **advanced SQL queries** on **16M+ row datasets** and managed **40+ Tableau dashboards**, collaborating with cross-functional teams to meet reporting needs.
- Used **Git and Jira** to track workflow and ensure consistent code versioning and stakeholder transparency throughout projects.

### San Jose State University

San Jose, CA

Research Analyst

Feb 2023 - Dec 2024

- Built and validated a **deception detection system** using **text and audio data** via **advanced NLP, machine learning, and deep learning models** (BiLSTM, ResNet50, and pre-trained transformers).
- Implemented a **late fusion model** in Python that combined **text and audio modalities**, achieving **90.9% accuracy** and **91.07% F1 score**, outperforming existing benchmarks.
- Published the work as first author at COMPSAC 2024.

### Tesla, Inc.

Sparks, NV

Data Science Intern

Aug 2022 - Jan 2023

- Developed and maintained **30+ Tableau dashboards** across teams, reducing manual reporting and increasing data accessibility.
- Created **modular Python ETLs** with clear documentation, significantly improving team efficiency in onboarding and project handovers.
- Built a Flask-based onboarding portal integrating SQLAlchemy and Jinja2, streamlining training material access.
- **Improved accuracy of key operational metrics by 10%** by resolving logic errors in dashboards.

## Projects

### Book Rating Prediction | Python, Pandas, NLP, ML

GitHub

- Cleaned 6M+ rows from Amazon and Goodreads datasets.
- Utilized multiprocessing to speed preprocessing by 100x.
- Applied sentiment analysis and machine learning models (Random Forest, Neural Networks) to reduce MAE/MSE by 10%.

### Banking System Design | SQL, Python, Schema Design

GitHub

- Designed relational schema and optimized queries.
- Led design, documentation, and performance evaluation for a mock banking system.

## Technical Skills

**Languages & Tools:** Python, SQL, MATLAB, R, Git, Jupyter Notebook

**Databases** : MySQL, PostgreSQL, MongoDB, Vertica

**Additional Skills** : Tableau, Excel, Machine Learning, Deep Learning, NLP, Predictive Analytics, Data Visualization, Research

## Education

### San Jose State University (SJSU)

San Jose, CA

Master of Science in Data Science

May 2024

### University of California, Irvine (UCI)

Irvine, CA

Bachelor of Science in Data Science

June 2020