

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 ETL 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

- Used **SQL** to extract and transform data for **30+ Tableau dashboards**, reducing manual reporting and increasing data accessibility across teams.
- 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