# TRANG TRUONG

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#### **SUMMARY**

Aspiring AI/ML Engineer with strong expertise in deep learning and supervised learning, using frameworks like PyTorch, TensorFlow, and Keras to build and optimize predictive models. Skilled in applying NLP techniques, including BERTopic, LDA, and large language models, to extract insights from unstructured data. Experienced in developing data pipelines and feature engineering with Python (Pandas, NumPy) and leveraging advanced SQL to manipulate and analyze large structured datasets. Proven ability to deliver end-to-end ML solutions, combining robust model performance with actionable business insights.

### **EDUCATION**

# Arizona State University

Aug 2023 - Dec 2026

Bachelor of Science, Business Data Analytics

- **GPA**: 3.86
- **Coursework:** Computer Applications and Information Technology, Math for Business Analysis, Business Statistics, Information Systems Analytics, AI Business, Principles of Programming with C++

#### **SKILLS**

- Programming Languages: Python (Pandas, NumPy, Matplotlib, Plotly, Scikit-learn), SQL, C++, HTML/CSS
- Machine Learning & AI: Supervised Learning (Regression, Classification), Deep Learning (NLP, BERTopic, LDA, LLMs, PyTorch, TensorFlow, Keras)
- Database & Querying: SQL, MySQL, NoSQL
- Frameworks & Tools: Jupyter Notebook, Visual Studio Code, Git
- Data Visualization: Matplotlib, Plotly, Excel, Tableau

### **PROJECTS**

## Intelligent Education Chatbot LINK | PyTorch, NLP (BERTopic), LLM (LLaMA 3)

Jun 2025 - Present

- Developed two NLP-based models for personalized learning: one collecting user preferences to recommend courses, and another interpreting direct commands for fast, intent-driven suggestions.
- Building a course-sequencing recommender system that suggests the next course based on user progression, leveraging behavioral patterns and course content relationships.
- Currently integrating LLaMA3 to power natural conversations and deliver adaptive, context-aware course recommendations in real time.

#### Sephora Product Reviews LINK | PyTorch, TensorFlow, NLP (BERTopic), LDA

Mar 2025 – Present

- Developed a production-grade data mining and NLP pipeline analyzing 160,000+ customer reviews using LDA and BERTopic, uncovering top dissatisfaction drivers across product categories.
- Engineered a skin-type recommendation model that uses user reviews to map suitable skin types, enhancing product relevance and personalization.
- Applied SMOTE for class balancing, boosting low-rating classification precision by 28%, and proposed product enhancement strategies through customer user research analysis.

# Loan Recovery System LINK | Python, Random Forest, Risk Scoring, Behavioral Modeling

Iun 2024

- Developed a Random Forest model using key financial and behavioral features to accurately classify overdue loans by recovery risk.
- Created individualized risk scores to segment borrowers into actionable categories for optimized collection strategies (legal action, settlements, automated follow-ups).
- Integrated predictive insights with borrower profiles to enable targeted, data-driven recovery planning and decision-making.

## House Rent Prediction LINK | Python, LSTM (Keras), Time Series Forecasting

Mar 2025

- Built a predictive model using LSTM networks to accurately predict house rental prices based on user-input features such as bedrooms, bathrooms, and square footage.
- Processed and analyzed structured housing data to extract key predictors and improve model generalization across metro regions.
- Achieved robust price estimation performance, enabling a responsive system that supports dynamic rental pricing tools and enhances user decision-making.

## **EXPERIENCE**

BullyBlocker

Undergraduate Researcher

Jul 2025 – Present

- Developing transformer-based models to detect cyberbullying from social media data.
- Processing datasets, fine-tuning large language models (LLMs), and evaluating model performance for real-world text moderation tasks.
- Researching ethical AI applications in online safety and automated abuse detection.

### School of Mathematical and Statistical Sciences, ASU

Oct 2024 – Jun 2025

Office Assistant

- Automated scheduling workflows for 200+ students, reducing advisor processing delays by 30% and enhancing operational transparency.
- Digitized and maintained math placement test records, improving access speed and minimizing administrative bottlenecks during registration periods.