

ORSAN KILICER

Data Scientist | Machine Learning Practitioner | Ph.D. in Mathematics

📍 College Station, TX | ✉ okilicer@tamu.edu | ☎ 979-807-4243

🌐 <https://okilicer.github.io> | 🐙 <https://github.com/okilicer> | 💼 <https://linkedin.com/in/orsan-kilicer>

Professional Summary

Ph.D. in Mathematics with deep expertise in scientific computing, numerical methods, and machine learning (applied in personal and academic projects). Proficient in Python, deep learning, and data preprocessing. AWS Certified Machine Learning Specialist with practical project experience. Work Authorization: F-1 OPT applied on April 4, available to start work on July 6, 2025. STEM extension eligible.

Technical Skills

- Languages: Python, SQL (MySQL), C++
- Libraries/Frameworks: Scikit-learn, TensorFlow, Pandas, NumPy, Matplotlib, Seaborn, XGBoost, BERT, LSTM, CNN, re
- Tools: Jupyter Notebook, Git, LaTeX
- FEM Libraries: FEniCS, NGSolve, deal.II
- Techniques: EDA, feature engineering, model evaluation, regularization, hyperparameter tuning

Certifications

- AWS Certified Machine Learning – Specialty (Oct 2023)
- AWS Certified Cloud Practitioner (Dec 2022)
- Machine Learning by Andrew Ng – Coursera (Dec 2019)
- Ultimate MySQL Bootcamp – Udemy (Nov 2023)

Projects

📁 Full project details and code: https://okilicer.github.io/machine_learning.html

- 📄 MNIST Digit Classification with TensorFlow
Built a neural network for digit classification using TensorFlow/Keras. Preprocessed and normalized MNIST data, trained a model achieving >97% accuracy.
Tools: Python, TensorFlow, Keras, NumPy, Matplotlib
- 🗣 BERT Disaster Tweet Classification
Fine-tuned a BERT model using Hugging Face Transformers to classify tweets. Optimized training on Kaggle GPU with minimal compute.
Tools: Hugging Face, Transformers, TensorFlow, Scikit-learn, Pandas

- 🚲 Bike Sharing Demand Forecasting (GRU + RF)
Used time-series GRU model and Random Forest to predict hourly demand. Engineered features from timestamps and applied early stopping. Random Forest achieved best RMSLE (~0.115).
Tools: TensorFlow, GRU, Scikit-learn, Pandas, NumPy, EDA

Education

- Ph.D. in Mathematics, Texas A&M University (May 2025)
Dissertation: Higher Order FEM for Surface Stokes Problems
- M.Sc. in Mathematics, TOBB ETU, Turkey — 2015
- B.Sc. in Mathematics, TOBB ETU, Turkey — 2013 (High Honor Graduate)

Experience

- Instructor of Record, Texas A&M University — Spring 2025, Fall 2024, Fall 2022
Lectured for Math 142, Engineering Math 151/152. Integrated programming into curriculum.
- Teaching/Research Assistant, TAMU — 2017–Present
Supported Math 609: Numerical Analysis. Assisted with Python assignments and FEM research.

Publications

- Kilicer, O., Demlow, A. (In prep). Higher Order FEM for the Surface Stokes Equation.
- Aksoylu, B., Celiker, F., Kilicer, O. (2019). Nonlocal problems with local boundary conditions. *Advances in Computational Mathematics*, 453-492
- Aksoylu, B., Celiker, F., Kilicer, O. (2019). Nonlocal operators with local boundary conditions: an overview. *Springer Handbook of Nonlocal Continuum Mechanics*, 1293-1330

Honors and Grants

- NSF Summer Research Grants (2020–2025)
- TUBITAK Research Fellowship, Turkey (2013–2015)
- High Honor Diplomas (M.Sc. 2015, B.Sc. 2013)

References

Available upon request.