Markus Hoehn

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Education

Stanford University Stanford, CA
B.S. in Mathematics, Minor in Statistics, GPA: 4.00 Expected June 2029
Relevant Coursework: Deep Learning (Graduate), Data Science, Real Analysis, Linear Algebra, Data Structures

Experience

Kansas State University Manhattan, KS
Machine Learning Research Intern, ML&DS Lab May 2024 – May 2025

- Co-authored a paper on crash severity prediction using machine learning and deep learning models on Kansas crash data, accepted to ASCE Transportation Conferences 2026.
- Built the full experimental pipeline, benchmarking ExcelFormer, TabNet, and tree-based models through training, evaluation, and hyperparameter optimization.
- Analyzed attention weights to identify key crash severity predictors and feature relationships.

Kansas State University Manhattan, KS
Mathematics Grader August 2023 – May 2025

- Evaluated and provided constructive feedback on coursework for hundreds of students in Applied Matrix Theory, Discrete Mathematics, and Vector Calculus.

FIRST Robotics Competition Manhattan, KS
Team Captain August 2022 – May 2025

- Led a 30-member robotics team through a codebase transition and swerve-drive implementation.
- Organized team meetings and volunteer events, and led the team's first regional win at the 2025 FIRST Central Missouri Regional and first qualification for the FIRST World Championship in its ten-year history.

Projects

Deaflingo (HackKU 2024) github.com/MarkOfUs/Deaflingo

- Built Deaflingo, a Flask web app for sign language learning with AI hand gesture detection, interactive practice tasks, and animated sign hints.
- Won 3rd place in the main themed track at HackKU 2024 among 85 submitted projects.
- Reached 190,000+ YouTube demo views and 150+ GitHub stars.

Wildfire Damage Prediction github.com/MarkOfUs/wildfires

- Built a geospatial ML pipeline using Uber's H3 grid to aggregate wildfire structure inspection data with terrain, vegetation, and fuel layers into a unified hex-level dataset.
- Engineered local and neighborhood-context features from DEM and LANDFIRE rasters and trained scikit-learn classifiers to predict whether a hex contained structural damage.

Additional Information

Business Professionals of America: National Finalist in Python Programming (10th nationwide), 2024
Dual Enrollment: Completed 95 college credit hours during high school, including upper-division and graduate coursework in mathematics, computer science, and physics.

Skills

Python (PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib, Flask, Jupyter), C++, LaTeX