Megan Kern

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EDUCATION

Birmingham Southern College May 2021

- B.S. in Mathematics (GPA: 3.524)
- Substantial science coursework in addition to mathematics.
  - General Physics I, General Physics II, Special Relativity
  - General Chemistry, Organic Chemistry I, Organic Chemistry II
  - Organismal Biology, Cell and Molecular Biology, Genetics
  - Psychology, Sociology

PROJECTS

Exploratory Data Analysis and Neural Network Classifier

- Modified missing values with consideration for changes to feature distribution**.**
- Implemented binary classifier with PyTorch lightning.
- Wrapped model in Ray Tune to search hyperparameter space.
- Model metrics visualized and discussed.

NLP Model Fine-Tuned on Domain Specific Data For Clustering

- Web scraped Physics papers from arXiv
- Fine-tuned s-BERT using Hugging Face and PyTorch Lightning libraries
- Clustered sentence embeddings with K-means using scikit-learn

SKILLS

Languages / Libraries: Python, PyTorch Lightning, Pandas, NumPy, scikit-learn. Will quickly self teach any additional languages needed.

Machine Learning: Will create or build upon data pipeline, model, model versioning, and metric tracking. The simplest model still meeting objectives is preferred.

Experiments: Will identify opportunity, design experiments, and analyze results based on exploring metrics, potential false assumptions, and opportunity cost to implement.

VALUES

- Ideas start from potential for business impact then are explored with curiosity.
- Well documented code written to maximize reuse cases.
- Concise data visualizations catered to technical and non-technical audiences.