Brandon Fafata

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Recent graduate passionate about developing machine learning systems looking for an entry-level industry position.

EDUCATION

Carnegie Mellon University Pittsburgh

B.S. Statistics and Machine Learning *August 2019 - May 2023*

SKILLS

Machine Learning Software Development: data preparation, model selection, fine-tuning, validation and testing
Python: pandas, scipy, Pytorch, Tensorflow, Keras, scikitlearn, spaCy, huggingface, PySpark
MLOps: Vector Databases, SQL, NoSQL, MongoDB. Docker, AWS, Google Cloud, git, linux
GPT Poweruser; Javascript, R, C, C++: OpenCV, Tableau, Tensorboard, MATLAB pyplot, HTML, CSS

RESEARCH EXPERIENCE

newsbooks

Under Christopher Warren, CMU English *September 2021- March 2022*

Utilized traditional statistical tools to identify ideologies and forgeries English Civil War texts.

Demonstrated validity of applying modern English semantic modelling to Middle English

NLP, scikitlearn, feature engineering, model selection, validation, text mining

AITOM

Under Siyu Huang, CMU Computational Biology *April 2021 - August 2021*

Developed generative images of CET scans for classification training.

Significant training time reduction compared to molecular dynamics simulation

CV, Pytorch, GANs (pix2pix), finetuning, huggingface, data pipelines

Tomo-net

Under Xiangrui Zeng, CMU Computational Biology *April 2020 - December 2020*

Created deep-learning semantic segmentation models for CET images.

Worked with a team that improved macromolecule classification above SOTA from 72% to 96%.

CV, Tensorflow, data cleaning, validation, data processing, web-scraping

PROJECTS

Interested in large language models, statistical learning theory, alignment
MARL-CL Leveraged graph nueral networks for communication in multi agent reinforcement learning
BERT-QG Question answering/generating system finetuned for Wikipedia using BERT
walkability NASA population distribution data and Google Maps API to better define urban planning metrics
cvkey Hand posture tracking to create a virtual keyboard

OTHER

Scouts BSA Eagle Scout, 2018
Certificates Datacamp pandas, Datacamp keras, Google ML Crash Course
Summer Work

Taco Bell (2017)
Lab Assistant at University of Pittsburgh Dept of Biology (2018)
Etna Borough Pool Food (2019), Admissions (2021)
Dunkin (2022)
Japanese Intermediate speaker
Shaler Area High School Summa Cum Laude, National AP Scholar