Carter Perkins

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EDUCATION

New York University   Sep 2021 – May 2023

Master of Science in Computer Science

University of Oregon   Sep 2017 – Jun 2021

Bachelor of Science in Computer & Information Science (Departmental Honors) and Mathematics

EXPERIENCE

Sumitovant Biopharama   New York, NY

Computational Research Intern   May 2022 - Aug 2022

- Deployed information extraction pipeline combining NER, relation detection, and predicate extraction models for identifying drug-based relations served as a REST API through Flask.
- Trained four, drug-based, relation detection models by curating datasets and fine-tuning a PubMedBERT for classification that achieved 71% F1 on average.
- Trained a biomedical company NER model by curating a dataset and fine-tuning a PubMedBERT model that achieved 94% F1.
- Improved in-house biomedical NER performance by 40% F1 on average through hybridizing in-house models with BERN2.

High-Performance Computing Lab, University of Oregon   Eugene, OR

Undergraduate Researcher   Aug 2020 - Sep 2021

- Explored translating regular expressions into English phrases by writing a parser in PLY and fine-tuning a BERT model.
- Designed a MySQL database to handle storing of extreme-scale application software Git repositories, issues, pull requests, and event activity history via Django, GraphQL, and REST APIs.

Computer & Information Science Department, University of Oregon Eugene, OR

Learning Assistant   Mar 2021 - Jun 2021

- Assisted graduate students in learning data science topics such as: data wrangling, KNN, Naive Bayes, and neural networks by answering in class questions and holding weekly office hours.

Lowd Group, University of Oregon   Eugene, OR

Undergraduate Researcher   Sep 2020 - Jun 2021

- Fine-tuned a RoBERTa model for climate change tweets with 83% accuracy and 92% AUC.
- Generated probable adversarial attacks against classification models using TextAttack and OpenAttack for dataset creation.
- Work led to two papers: arXiv preprint (2022) and BlackboxNLP (2021).

SKILLS

Languages: Python · C · C++ · Java

Databases: MySQL · PostgreSQL · MongoDB · MarkLogic

Data Science: Pandas · NumPy · RapidMiner

Visualization: Matplotlib · Seaborn · Plotly

Machine Learning: Scikit-learn · PyTorch · HuggingFace · PyTorch Lightning · W&B · Tensorflow

Web API: Flask · GraphQL · Django

Cloud & Containers: AWS · GCP · IBM Cloud · Docker

NLP: NLTK · SpaCy · Gensim

Other: Word · Excel · Powerpoint · Cortellis