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Tobby Lie
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Education

Denver, Colorado **UCDenver** **May 2021 | August 2022**

- MS in Computer Science. GPA: 4.0

Denver, Colorado **University of Colorado Denver** **May 2017 | May 2021**

- BS (BS/MS Dual Scholars Program) in Computer Science. GPA: 4.0

Employment

Developer/Research Asst. **CDOT/UCDenver - BDLab** **June 2020 – Present**

- Researched state-of-the-art deep learning literature for forecasting of bridge time series data.
- Curated, prepared, and integrated raw datasets pulled from multiple sources using **Python**.
- Developed neural network models in **Tensorflow** for multi-variate time series forecasting.
- Packaging solution into an end to end service utilizing **MLFlow** and **Docker**.

Developer/Research Asst. **National Snow and Ice Data Center/UCDenver - BDLab** **May 2021 – Present**

- Assisting NSIDC team with developing deep learning methods for integrating and modeling image data coming from multiple sources at different resolutions for the task of image classification.

Developer/Research Asst. **UCDenver - BDLab** **May 2021 – Present**

- Benchmarking BERT-based language models for usage with biological sequence alignment.

Developer/Research Asst. **UCDenver - ACID Lab** **Fall 2019 – June 2020**

- Implemented data-driven methods in **Jupyter notebooks** to train classifiers and topic modelers on multi-modal data to serve the purpose of polarization intent detection in a dataset of IRA ads.

Technical Skills

- Languages: C++, Python
- Frameworks and Libraries: Tensorflow, Pandas, Sklearn, Numpy, Matplotlib, Seaborn, MLFlow
- Tools: Git, Windows, MacOS, Linux, Docker, VMWare Fusion, Jupyter Notebook, VSCode

Achievements

- **TrueFact 2020 Publication** (TrueFact 2020) "Multi-Modal Classification for Polarization Intent Detection in Social Media", accepted into TrueFact 2020 in conjunction with KDD 2020. Aug 2020
- **Comcast NBCUniversal Virtual Development Experience Certificate** (Comcast) Online Technology and Engineering virtual program provided by Comcast in place of my Summer 2020 Software Engineering internship which was cancelled due to Covid-19. Aug 2020
- **Research and Creative Activities Symposium 1st Place** (UCDenver) 1st place winner of team-based university-wide research competition for a project titled “IAR: An Intelligent Augmented Reality Framework”. May 2020
- **Undergraduate Research Opportunity Program Grant** (UCDenver) Competitive program designed to financially support research projects for CU Denver students. Nov 2019