TOBBY LIE

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EXPERIENCE

University of Colorado Denver - Active Cyber Infrastructure Defense Lab
Research Assistant (Data Science/Cyber Security) - Russian Disinformation
- Fall 2019 - Present
- Utilizing data driven methods to implement detection of disinformation as well as topic modeling of dominant themes from a dataset of Internet Research Agency ads.

University of Colorado Denver - Big Data Management and Mining Lab
Research Assistant - CDOT Bridge Management
- June 2020 - Present
- Exploring CDOT bridge data in order to deploy machine learning/deep learning models to perform bridge subtyping and deterioration forecasting.

PROJECTS

Multi-Instrument MIDI Generation with RNNs
- Collaborated with a small team and experimented with recurrent neural networks to analyze how they could be trained to learn and generate pieces of music based on existing music files.

Intelligent Augmented Reality Framework
- I worked closely with university faculty and four other top performing students, we developed a general purpose intelligent classification framework that utilized machine learning, augmented reality and edge computing. The initial task was bacteria classification.

PUBLICATIONS

- "Multi-Modal Classification for Polarization Intent Detection in Social Media", TrueFact 2020 in conjunction with KDD 2020, August 2020

EDUCATION

University of Colorado Denver, Denver, CO   Jan 2017 - May 2021
- Candidate for BS/MS Dual Scholars Program in Computer Science
- Overall GPA: 3.5/4.0, Computer Science GPA: 4.0/4.0

SKILLS

- **Languages** - Python3, C++, Assembly x86, PHP/SQL, Bash, Powerscript, Julia, Swift
- **O/S** - macOS, Windows 10, Linux
- **Software Tools** - Visual Studio, Visual Studio Code, Sublime Text, Pycharm, VMWare Fusion, XCode, Unreal Engine 4, Git, Jupyter Notebook, Google Colaboratory, Github, ARKit, Google Cloud
- **Professional** - Strong communication, curious learner, detail-oriented, approachable, excellent time management

ACHIEVEMENTS

Undergraduate Research Opportunity Program (UROP) Grant - Competitive program designed to financially support research projects for CU Denver Undergraduate students. Approx. 20-40 UROP Full Grant applications awarded each spring semester.
Research and Creative Activities Symposium 1st Place Winning Team (RaCAS) - 1st place winner of team-based university-wide research competition for a project titled "IAR: An Intelligent Augmented Reality Framework" for the category of Technology, Engineering & Math.

CERTIFICATES

Comcast NBCUniversal Virtual Development Experience Certificate - Due to the cancellation of my Summer 2020 Software Engineering internship because of Covid-19, Comcast graciously offered a Technology and Engineering virtual program to learn about the company, their products, and employer experiences.