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Education

Master of Science, **University of Central Florida** **January 2019 - December 2021**

- Recently graduated with a master's in computer engineering with coursework focused on artificial intelligence.
- Studied machine learning, natural language processing, and computer vision techniques and applications.
- Gained experience with machine learning libraries such as TensorFlow, PyTorch, NumPy, and Pandas.

Bachelor of Science, **University of Central Florida** **December 2018**

- Graduated from University of Central Florida with a Bachelor of Science in Electrical Engineering.
- Gained experience giving lectures and presentations in front of committees.
- Developed teamwork and leadership skills throughout multiple class projects.
- Experience working in a lab environment.

Major Projects

- **Interactive Chess Trainer**
  - Smart chess board for senior design degree requirement project.
    - Lead a group to research, design, develop, and build a smart chess board.
    - Responsible for researching hardware components and developing multiple design strategies.
    - Built working PCB microcontroller from design strategy using EasyEDA.
    - Developed basic AI software to allow interactive playing experience.

- **Facial Recognition Software**
  - Worked in a group to design a facial recognition software using a neural network.
    - Responsible for design strategies to accomplish objectives.
    - Designed a custom neural network and trained the model several datasets.
    - Achieved 88% accuracy at detecting faces in camera view.

- **Drug Resistance In Tuberculosis**
  - Worked on project to predict drug resistance of Tuberculosis.
    - Researched and implemented various machine learning techniques.
    - Gathered and preprocessed gigabytes of data for training and testing.
    - Utilized feature engineering techniques to classify data by mutations.
    - 85% accuracy in predicting whether a strain of Tuberculosis was drug resistant.

- **BERT-to-BART Summarization**
  - Utilized extractive and abstractive NLP techniques to summarize biological research paeprs.
    - Created new embeddings using Word2Vec, TF-IDF scores, and SBERT.
    - Implemented ensemble of clustering algorithms to find the best embeddings.
    - Designed a pipeline to send embeddings to the BART model for abstractive summarization.
    - Achieved a ROUGE-2 score 3% lower than several state-of-the-art models.

Relevant Experience

Freelance Tutor **2016-2022**

- Helped students improve their understanding of concepts in math, chemistry, and computer science.
- Increased students' performance by 1-2 letter grade(s).

Skills

- Proficient in Python, C, JavaScript, and Matlab
- Experience working in a Linux environment
- Experience with data mining and feature engineering
- Programming experience on microcontrollers