Matt Serdukoff

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PROFESSIONAL / TECHNICAL EXPERIENCE

TRAKUS: Wakefield, MA

System Operator (February 2021 - November 2022)

- Held the position of System Operator at Trakus, a dynamic role that ensures the seamless operation of the tracking system during high-pressure equestrian racing events. Primary focus was on maintaining the system's functionality and performing data acquisition even under tight schedules, guaranteeing that it would consistently deliver top quality data. By closely monitoring and troubleshooting, I contributed to the precision and reliability of said data acquisition. The experience here honed my ability to thrive in fast-paced environments while maintaining a commitment to delivering exceptional results.

SELECTED PROJECTS:

Predicting Cardiovascular Disease using Machine Learning

 Using a dataset containing various symptoms and vitals, I wrote code in Jupyter Notebook that utilized Naïve Bayes, Logistic Regression, Linear Regression, and Decision Tree models to predict the presence of cardiovascular disease.

Learning a Children's Book using a Deep Averaging Network and Logistic Regression

- This project is from my Natural Language Processing class, it reads from a dataset that contains a diverse collection of text data from various children's books providing a valuable resource for NLP tasks tailored to young readers. Questions are categorized into four types: V (verbs), P (pronouns), NE (named entities), and CN (common nouns). For this project, only CN was utilized. Two models were tested, a Deep Averaging Network (DAN) and Logistic Regression.

Person or Dog Image Classifier

- Taking inspiration from the MNIST digit image classifier, I decided to see how accurate a neural network could be on data that is not polished. Using mass downloaded images from searches of both 'person' and 'dog', I created a model that can achieved an accuracy of 0.9911 with 20 epochs.

Personal Portfolio Website made in the Style of Linux Terminal

- A simple website built to resemble a Linux terminal using HTML, CSS, and JavaScript. Contains terminal-like functionality.

SKILLS

- C/C++, SFML
- Pandas, NumPy, Matplotlib, PyTorch
- Machine Learning

- Python
- Scikit-learn, Natural Language Toolkit
- Deep Learning

- SOL
- Natural Language Processing
- Artificial Intelligence

RELEVANT COURSEWORK

Natural Language Processing Machine Learning Artificial Intelligence

CERTIFICATES

- Getting Started with Python (Part of Google Advanced Data Analytics Certificate)
- Foundations of Data Science (Part of Google Advanced Data Analytics Certificate)

EDUCATION

UNIVERSITY OF MASSACHUSETTS LOWELL:

ST. JOHN'S PREPARATORY SCHOOL:

Bachelor of Science in Computer Science with Data Science concentration

Lowell, MA April 2024

Danvers, MA *May 2019*

LANGUAGES & HOBBIES

High School Diploma

Fluent: English and Russian Proficient: Italian & German Basic: Turkish and Hebrew Linguistics, History of Language Photography Guitar and Fl Studio