Sai Sree Tarun (Sai) Kurakula

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Education:

- **Bachelor of Science - Data Science (GPA: 3.786) -** *Mercyhurst University* **May 2024**
- **Bachelor of Science - Cyber Security (GPA: 3.689) -** *Mercyhurst University* **May 2024**

Experience:

Processing/ Data Analyst Intern - *Erie Office of Children and Youth* **Mar 23 –Present**

- Developed an Adobe Acrobat forms system using Python and JavaScript to automate data population, minimizing redundant entries. Conducted exploratory data analysis to derive insights from data.

Tutor – *Mercyhurst University* **Feb 22 – Dec 22**

- Tutored in advanced math, data science, and cyber-security courses.

Geology Intern – *Mercyhurst University.* **Feb 22 – May 23**

- Developed an Augmented Reality Sandbox.

Certifications:

- PCEP (Certified Entry-level Python Programmer) – by Python Institute.
- Machine Learning Specialization – by DeepLearning.ai, Coursera, and Stanford.

Technologies and Frameworks:

- **Programming Languages:** Python, R, JavaScript, SQL, HTML/CSS.
- **Machine Learning:** NumPy, TensorFlow, Scikit-Learn, Keras, NLTK, and Spacy.
- **Data Analytics:** Pandas, Polars, Plotly, Seaborn, D3.js, Matplotlib, Bokeh, Tableau, and Excel.

Skills:

- Thorough knowledge in mathematical subjects like Calculus, Linear Algebra, Graph Theory, Numerical Methods, Probability, and Statistics.
- Worked on projects using frameworks like Django, Flask, Py-Spark (big-data).
- Proficient in fundamental ML algorithms such as Linear Regression, Polynomial Regression, Logistic Regression, Decision Trees, K-means Clustering, Neural Networks, Density estimation, Recommender Systems, and Reinforcement Learning (Bellman Equation).
- Extensive understanding on ML techniques including ML notation, vectorization, learning rate, cost and loss functions, gradient descent, feature scaling, decision boundaries, overfitting and underfitting prevention, regularization, forward propagation, activation functions (Relu, SoftMax, Adam, etc.), cross-validation, model selection, bias and variance diagnosis, and Mini batch and soft updates for Reinforcement Learning.
- Demonstrated good communication, organization, leadership, and project management skills as the President of Data Science Club.

Projects:

Facial Expression Recognition using Media Pipe – *Computer Vision* **Jan 23 – April 23**

- Developed a Neural Network using Google's pre-trained media-pipe model to detect 8 facial expressions with 98-99% accuracy, including Fear, Contempt, Happiness, Surprise, Disgust, Neutral, and Fear.

Co2 Emission Prediction using Multiple Features – *SGD Regression* **December 2023**

- Implemented linear regression both mathematically and with Scikit-Learn illustrating my fundamental understanding on ML.

Achievements:

- Dean’s List (4 times): For having GPA greater than 3.60 per semester.
- President of Data Science Club: Created the club and actively encouraged students to participate.