

Gerald Heart

Austin Tx | geraldheart01@gmail.com | 956-802-1359 | github.com/GHeart01 | linkedin.com/in/geraldheart001 | geraldheart.com

EDUCATION

University of Colorado Boulder GPA: 3.9	<i>Expected May 2027</i>
Master of Science in Computer Science	Boulder, Co
University of Texas Rio Grande Valley GPA: 3.5	<i>July 2017 – May 2020</i>
Bachelor of Science in Applied Mathematics	Edinburg, Tx
Blinn College GPA: 4.0	<i>June 2024 – December 2024</i>
Associates of Science in Computer Science	Bryan, Tx
South Texas College GPA: 3.5	<i>Aug 2014 – December 2017</i>
Associates of Science in Engineering	McAllen, Tx

PROJECTS

Customer Segmentation & Clustering Analysis | *NumPy, pandas, seaborn, matplotlib, TensorFlow*
github.com/GHeart01/Wholesale_Customer_Clustering

- Built a customer segmentation pipeline using KMeans and Hierarchical Clustering to identify purchasing behavior patterns.
- Evaluated clustering quality using silhouette scores between cluster counts.
- Provided heatmap/pair plot visualizations to display data.

SMS Spam Detection Analysis – Deep Learning | *NumPy, pandas, seaborn, matplotlib, SciPy*
github.com/GHeart01/SMS-Spam-Collection-Deep-Learning

- Data engineered features from raw data to gain better pivot points for analysis.
- Compared deep neural networks and LSTM models to provide basis on decision making.
- Improved model performance and viewer-accessibility through visualization and log-transformed feature analysis.

NLP Disaster Analysis – Natural Language Processing | *NumPy, pandas, seaborn, Keras, TensorFlow*
<https://github.com/GHeart01/NLP-Disaster-Tweets>

- Utilized a DistilBERT-based NLP model to classify disaster-related tweets.
- Reduced model size by 50% while maintaining 97% validation.
- Addressed overfitting through hyperparameter tuning and validation analysis, compared heatmaps to compare the performance difference.

WORK EXPERIENCE

Guest Teacher	<i>Aug 2025 – present</i>
Harmony Science Academy / Kokua Education	Austin, Tx
<ul style="list-style-type: none">• Performed teaching duties for K-12 schools• Performed IT work including computer setup, maintenance, and installations.	
Mathematics Tutor	<i>Sept 2018 – June 2024</i>
South Texas College / Freelance	McAllen, Tx
<ul style="list-style-type: none">• Performed one-on-one and group instruction for mathematics and statistics courses including College Algebra, Calculus I, II, III, Elementary Statistics, Differential Equations, and other mathematics classes.	

SKILLS

Languages: Python, SQL, C++, JavaScript, MATLAB

Machine Learning & Data Engineering: Pandas, NumPy, scikit-learn, TensorFlow, Keras, SciPy

Data Visualization: Jupyter Notebook, Matplotlib, Seaborn

Databases & Tools: PostgreSQL, Docker, Git, GitHub, AWS Lightsail

Other: Linux, Bash, VS Code, Three.js, gsap