Tony Griffin

Data Scientist

(757)-667-0669 | TonyGriffin2000@gmail.com | LinkedIn | GitHub | Personal Site

Skills

Programming Languages: Python, SQL, Java, Bash, C++
Libraries: PyTorch, Tensorflow, Pandas, NumPy, Matplotlib, Seaborn, Plotly
Tools: Docker, MySQL, Jupyter, Linux, PostgreSQL, Git, GitHub, Conda, UV

Education

Old Dominion University Norfolk, VA
Master's Degree in Data Science with focus in Artificial Intelligence , GPA: 4.0 *Spring 2025 - Present*

Old Dominion University Norfolk, VA
Bachelor's Degree in Computer Science with Minor in Cybersecurity , GPA: 3.8 *Fall 2021 - Spring 2024*

Tidewater Community College Chesapeake, VA
Associate's Degree in Computer Science , GPA: 3.8 *Fall 2019 - Summer 2021*

Work Experience

Graduate Research Assistant | *Old Dominion University* Spring 2026 - Present

- Developed two Physics-Informed Neural Network (PINN) architectures — MLP and Kolmogorov–Arnold Network (KAN) — as data-driven surrogate models for solving the 2D Poisson equation
- Explored KAN's built-in library and the PySR library to extract a symbolic representation from the trained neural network surrogate
- Integrated extracted symbolic formulas into a MATLAB solver to analytically evaluate differential equations via symbolic integration

Data Science Intern | *Hampton Roads Biomedical Research Consortium* Summer 2025 - Fall 2025

- Built a deep quantile regression model in TensorFlow to predict local flood probability from Open-Meteo forecast and observational weather data for Virginia Beach
- Developed an extendable and configurable ETL processing pipeline for acquiring Open-Meteo weather forecast data using Pandas and Requests
- Utilized Docker Compose to orchestrate multiple data streams and data volumes, including MySQL, for use by the Data Science team in modeling and reporting

Projects

MLens | *PySpark, MLlib, Python, Plotly, Jupyter*

- Built a machine learning pipeline to generate movie recommendations from the MovieLens dataset
- Implemented collaborative filtering via alternating least squares (ALS)
- Tuned ALS rank and regularization hyperparameters using 3-fold cross-validation

Community Curator | *React, Django, PostgreSQL, JavaScript, Python, AWS RDS, MaterialUI*

- Collaborated in a team of six developers to develop a full-stack web application to aid hobbyists and hobby groups reach each other
- Developed and deployed REST APIs using Django
- Engaged with the front-end team to integrate back-end changes to React components
- Led the development of a user wiki for interacting and using the application
- Co-developed and presented project progress and demonstrations to stakeholders