# Grady Dillon
## Data Scientist/Software Engineer

Data scientist and software engineer driven by passions in mathematics, data, statistics, programming, problem-solving, and learning. Aspires to collaborate with a dynamic team and continuously broaden expertise.

## Experience

**June 2025 – Present**
**Staff Data Scientist I – *Applied Research Associates, Inc.***
Alexandria, VA

- Developed software package in Python using PyQt for GUI support, Plotly for interactive visualizations, and Python software engineering techniques.
- Designed effective visualizations using Matplotlib and Seaborn.
- Implemented LLM models to summarize and rank proprietary and classified materials.
- Obtaining active DoD Top Secret/SCI clearance.

**May 2024 – August 2024**
**Data Scientist Intern – *Applied Research Associates, Inc.***
Alexandria, VA

- Designed and implemented interactive training aids and materials, including dashboards, notebooks, applets, and visualizations to modernize legacy training content.
- Leveraged the Jupyter ecosystem and Python to deploy innovative solutions that enhance learning experiences.
- Obtained active DoD Secret clearance.

## Projects

**November 2025 – December 2025**
**Genetic Algorithm Stock Trading**

- Developed primitive, asexually reproducing genetic algorithm to predict a single stock's trend for the following trading day.
- Integrated ETL pipeline using Yfinance, Pandas, and NumPy in Python connected to paper trading account on Alpaca to make daily trades.
- Deployed with Docker at scheduled intervals on local Raspberry Pi cluster.
- Grew paper portfolio 10.3% despite stock's 12.7% drop in 4 weeks.

**December 2025 – Present**
**Manifold – Multi-Channel E-Commerce Analytics SaaS**

- Architected RESTful API backend using FastAPI and PostgreSQL with JWT authentication and Alembic migrations.
- Constructed OAuth 2.0 integrations for Shopify/Etsy/Amazon platforms.
- Developed secure API endpoints integrating external platform APIs to fetch and transform JSON order data.
- Implemented data pipelines to parse responses and store normalized records with fees and profit margins.
- Deployed production application to Railway with Git version control and environment-based configuration.

## Education

**University of Virginia**
*August 2025 – December 2027*

**M.S. Data Science**
Online, Part-Time

**Shenandoah University**
*August 2021 – May 2025*

**B.S. Data Science with Applied Mathematics,**
**B.S. Computer Science**
Cybersecurity Minor

## Skills

- Active DoD Secret Clearance
- Programming (Python, R, SQL, Java, C#)
- Data Visualization
- Artificial Intelligence/Machine Learning
- Statistical Analysis
- SQL Databases
- ETL Pipelines
- API Experience
- Attention to Detail
- Time Management
- Collaborative
- Eager to learn

## Contact

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