Thomas M. Burrell III (Trey)

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Results-driven Data Scientist with a Master's in Data Science from the University of Virginia and extensive experience in software development and data analysis. Proven track record in leveraging machine learning, statistical modeling, and data visualization to deliver actionable insights. Adept at working in fast-paced, collaborative environments, with a strong focus on continuous learning and innovation.

Education

University of Virginia, Charlottesville, VA
Master of Science in Data Science, May 2024 | GPA: 3.9

- Relevant Coursework: Linear Models for Data Science, Bayesian Machine Learning, Big Data Systems, Deep Learning

Bachelor of Arts in Applied Statistics - Econometrics Concentration, May 2023 | GPA: 3.8

- Minor: Data Science
- Relevant Coursework: Statistical Machine Learning, Applied Linear Models, Data Science Systems, Data Analysis with Python

Professional Experience

Project Pioneer | Dahlgren Naval Base, Dahlgren, VA
Data Scientist (Secret Clearance) | June 2024 - Present

- Designed and implemented interactive visualizations to enhance analysis of complex ML data.
- Conducted AI/ML configuration comparisons, analyzing metrics such as F1, recall, and precision.
- Developed a user-friendly web interface for test harnesses, enabling real-time AI/ML testing.
- Integrated 3D modeling to visualize live data, improving data interpretation.
- Implemented UX/UI framework for advanced metric visualization and data analysis.
- Collaborated with AI consulting services to integrate responsible AI tools.
- Presented work to leadership and engaged with stakeholders for continuous feedback.

PLAN-EO Capstone Initiative | University of Virginia, Charlottesville, VA
Data Scientist | Dec 2023 – May 2024

- Analyzed large-scale healthcare datasets, to monitor pathogen prevalence in low-income countries using SQL, R, and Python.
- Engineered predictive models (GAMs, GLMs) to forecast pathogen spread using diverse datasets.
- Designed and maintained dynamic dashboards using R Shiny for real-time visualization of healthcare data, enabling stakeholders to monitor health outcomes.

- Collaborated with interdisciplinary teams to ensure scalability and data accessibility.

USS SECURE | Dahlgren Naval Base, Dahlgren, VA
Data Engineer Intern (Secret Clearance)| May 2021 - Aug 2021, June 2022 - Aug 2022

- Built and managed a database for real-time network configuration monitoring, improving data accessibility.
- Developed a Python-based file scraper to automate data extraction, streamlining processes and improving efficiency.
- Conducted comprehensive cyber risk assessments and performed vulnerability testing on naval systems, enhancing cybersecurity posture.
- Modernized legacy websites using web development tools, improving user experience and accessibility.

Technical Skills

- Languages: Python, R, SQL, NoSQL, Databricks, AWS, HTML
- Tools: R Shiny, Power BI, Tableau, Git, Docker
- Methods: Machine Learning, Computer Vision, Statistical Modeling, Data Visualization, Agile Development

Certifications & Achievements

- Active Secret Security Clearance
- Science, Mathematics, and Research for Transformation (SMART) Scholarship Recipient
- UVA University Achievement Award (UAA)
- Proficient in Spanish