DALTON PAYNE

Graduate Student • Data Analytics & AI

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PROFESSIONAL SUMMARY

Passionate data scientist and AI practitioner with a strong background blending biomedical science, analytics, and hands-on machine learning. Proven track record in competitive data science with multiple top-tier finishes in Kaggle competitions. Experienced in building practical solutions for predictive modeling, NLP, computer vision, and data engineering across diverse domains including medical imaging, time series forecasting, and recommendation systems.

EDUCATION

Master of Science, Data Analytics & Artificial Intelligence   2024 – 2026
Nova Southeastern University

Relevant Coursework: Data Structures & Algorithms, Database Systems, Data Warehousing, Data Mining, Deep Learning, Data Visualization, Cybersecurity Fundamentals

Bachelor of Science, Biomedical Science   2018 – 2024
University of Central Florida

Relevant Coursework: Statistics, Bioinformatics, Cell Biology, Immunology, Biochemistry, Human Anatomy & Physiology

EXPERIENCE

Adult Education Adjunct Instructor   Nov 2024 – Jul 2025
South Florida State College

- Delivered instruction in adult education programs, supporting diverse learners in achieving academic and career goals
- Developed lesson plans and assessments tailored to individual student needs
- Collaborated with faculty and staff to enhance curriculum and student engagement

Undergraduate Research Assistant   Sep 2023 – Feb 2024
Computational Biology Lab, University of Central Florida

- Assisted in developing and validating machine learning models for genomic data analysis
- Automated data preprocessing and machine learning pipelines using Python to improve reproducibility
- Collaborated with faculty and graduate students on research projects involving bioinformatics and computational genomics

SELECTED PROJECTS & COMPETITIONS

Trojan Horse Hunt in Time Series Forecasting - 16th place of 150

European Space Agency "Secure Your AI" Competition

- Reconstructed trojan triggers injected into satellite telemetry forecasting models using spectral and statistical methods
- Explored adversarial poisoning in multivariate time series using anomaly detection and robust model analysis
- Documented findings and contributed to open-source reproducibility

FlightRank 2025: Aeroclub RecSys Cup - Top 18%

Kaggle Competition

- Developed group-wise ranking model to predict flight selections for business travelers from thousands of alternatives
- Engineered features from pricing, timing, route, and user attributes
- Implemented ranking algorithms optimized for placing chosen flights at the top of each session

CMI - Detect Behavior with Sensor Data - Top 22%

Child Mind Institute Competition

- Predicted body-focused repetitive behaviors from wrist-worn device sensor data
- Engineered features from movement, temperature, and proximity sensor streams
- Trained models to differentiate BFRB-like and non-BFRB-like activity across multiple body positions

Brain Tumor MRI Classification - 99.2% Test Accuracy

- Fine-tuned ResNet-50 for 4-class classification of brain tumors from MRI scans
- Implemented transfer learning, data augmentation, and comprehensive evaluation metrics
- Achieved high accuracy in distinguishing glioma, meningioma, pituitary tumor, and healthy tissue

TECHNICAL SKILLS

Programming:	**Machine Learning:**	**Tools & Frameworks:**
Python, R, SQL, Linux	Deep Learning, Computer Vision, NLP, Time Series Analysis	PyTorch, scikit-learn, pandas, numpy, Tableau

Data Engineering:	**Specialized:**
BigQuery, ETL, Data Warehousing, Database Systems	Medical Imaging, Bioinformatics, Cybersecurity, SIEM

CERTIFICATIONS

Data Analyst Associate - DataCamp (Feb 2025 - Feb 2027)

Google Advanced Data Analytics Specialization - Google (Jun 2023)

Google Business Intelligence Professional Certificate - Google (May 2023)

Google Cybersecurity Professional Certificate - Google (May 2023)

Google Data Analytics Professional Certificate - Google (May 2023)