Tyler **Pollard**

Statistician · Data Analyst · Data Scientist

Parrish, FL, 34219

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Professional Summary

Statistician with 8+ years of experience in predictive modeling, advanced statistical analysis, statistical inference, forecasting, and data-driven decision support. Experienced developing probabilistic models to predict outcomes, quantify uncertainty, and identify actionable signals, with independent applications in sports analytics and financial market modeling. Advanced proficiency in R with practical Python experience, building reproducible analytical workflows and automated reporting solutions that translate complex data into actionable insights.

Skills

Programming & Tools R, Python, SQL, R Shiny, Quarto, Stan, CmdStan, GitHub, JAGS, JMP, SAS, Tableau

Machine Learning Regression, Classification, XGBoost, Random Forests, Time Series, State Space, Clustering

Statistical Expertise Bayesian Statistics, Predictive Modeling, Multilevel Modeling, Multivariate Analysis, Design of Experiments (DOE), Data Visualization, Forecasting

Other Workflow Automation, ETL, Cloud Deployment, CI/CD, Decision Support Systems, Report Generation

Work Experience

Senior Data Analyst

Tampa, FL

U.S. Special Operations Command

April 2024 - Current

- Built an internal R package to automate retrieval of live data from a MySQL database, perform statistical analysis, and generate Quarto-based schedule reports, creating a reproducible workflow for recurring stakeholder deliverables.
- Developed Bayesian multilevel ordinal regression models to analyze Likert survey data, enabling iterative updates to improve model accuracy. Delivered actionable insights that informed strategic decision-making and enhanced the evaluation of behavior change.
- Designed and implemented a stance detection framework combining large language models with Bayesian hierarchical modeling. Scaled analysis from 43 text items to tens of thousands, achieving a 32% improvement in prediction accuracy while quantifying uncertainty for more informed decision-making.
- Conducted survival analysis on social media time-to-event data using semi-parametric joint models with time-varying predictors. Identified critical time thresholds that shaped strategic adjustments in planning and execution.
- Programmed and deployed R Shiny applications on the Posit Connect cloud platform, enabling over 50 assessment team members to perform standardized statistical analyses. Improved workflows for data visualization and reporting.
- Promoted to lead a 6-person assessments team, overseeing the development of standardized evaluation frameworks and innovative solutions to assess Military Information Support Operations across 11 cross-functional commands.

Statistician

Aberdeen Proving Ground, MD

U.S. Army Evaluation Center

September 2018 - April 2024

- Collaborated with 24 multi-disciplinary teams to develop statistical models, applying DOE, simulations, and advanced techniques. Delivered test designs that addressed critical evaluation metrics and reduced resource requirements by up to 67%.
- Designed and automated modular workflows for analyzing multilevel probability response variables. Used R and JMP scripts to integrate Monte Carlo simulations, Beta-Binomial regression, and kernel density estimation, enabling scalable and iterative analyses.
- Performed extensive analyses on continuous, discrete, and survey datasets using regression, mixed models, and Bayesian methods. Delivered actionable reports and visualizations that supported data-driven decision-making by senior leadership.
- Applied advanced statistical techniques to ensure the success of a top-priority operational test and transform test infrastructure, earning the “Department of the Army Civilian Service Commendation Medal.”

- Enhanced probabilistic modeling tools, improving the accuracy and efficiency of test design processes. Recognized as the “AEC Employee of the Quarter” for these contributions.

Education

Master of Statistics
Raleigh, NC

North Carolina State University | GPA: 4.00
July 2024

B.S. in Mechanical Engineering
Clemson, SC

Clemson University | GPA: 3.53
May 2018

Security Clearance

Active Top Secret / Sensitive Compartmented Information