

Josh DeMontigny

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EDUCATION

Wake Forest University

Bachelor of Science in Statistics and Computer Science

Minor in English

GPA: 3.86; Dean's List: all semesters

Winston-Salem, NC

May 2026

Relevant Courses: Multivariable Calculus, Regression & Data Science, Discrete Mathematics, Linear Algebra & Differential Equations, Probability, Computer Systems, Statistical Learning, Algorithm Design & Analysis, Software Engineering, Mobile & Pervasive Computing, Statistical Inference, Linear Models, Text Analysis, Multivariate Statistics, & Machine Learning

TECHNICAL SKILLS

Programming Languages: Python, Java, R, SQL, C, MIPS, C++

Operating Systems: Unix, Linux, Windows, Raspberry Pi OS, MacOS

Development Tools: Git, HTML, CSS, RStudio, Excel, IntelliJ, CLion, Unix CLI, Visual Studio Code, Jira, LaTeX

Libraries & Frameworks: NumPy, Pandas, Scikit-learn, tidyverse, glmnet, randomForest, ggplot2, Matplotlib

PROFESSIONAL EXPERIENCE

Dynatrace, Business Intelligence Intern

Boston, MA | May 2025 - August 2025

- Built a customer behavior forecasting model in Python using LSTM and KNN and improved 12-month prediction accuracy (SMAPE) by 24% across a dataset of 100,000+ customer records
- Applied statistical metrics (MAE, RMSE) to optimize models, reduced forecast error by 19%, and presented insights to cross-functional teams for data-driven business decisions

WFU Drone Lab, Student Researcher

Winston-Salem, NC | July 2024 - Present

- Implement deep reinforcement learning (DDQN, A2C) and supervised computer-vision models (YOLO) in Python to improve autonomous navigation and reliably detect areas of interest during real-world flights
- Build and deploy end-to-end flight software on a custom UAV platform by integrating CubePilot/Cube Orange autopilot with a Raspberry Pi and camera sensors, enabling onboard inference and autonomous mission execution

PROJECTS

Datafest 2025, Competition Participant

Winston-Salem, NC | April 4 – 6, 2025

- Analyzed 20,000+ commercial rental records in R for DataFest using tidyverse, ggplot2, and Spearman correlations to uncover non-linear patterns and regional and industry trends, presenting findings to a panel of judges
- Processed and modeled complex time-series data to uncover trends in the Commercial Rental Market before and after the COVID-19 pandemic, demonstrating expertise in unsupervised analysis, visualization, and data-driven storytelling

Equity in Post-HCT Survival Predictions, Data Analyst

Winston-Salem, NC | January 2025 - March 2025

- Created robust event-free survival prediction models using Classification and Regression Trees, K-Nearest Neighbors, and Elastic Net regression (via glmnet), applying Leave-One-Out Cross-Validation to rigorously validate model performance
- Developed a prediction model that achieved a 10% increase in predictive accuracy compared to baseline models

LEADERSHIP EXPERIENCE

Wake Forest University, Research Assistant Team Lead

Winston-Salem, NC | September 2025 - Present

- Analyze 100+ police interactions with citizens in R, using sentiment lexicons and linear discriminant analysis to detect communication patterns and assess sentiment dynamics
- Apply statistical and natural language processing methods to translate findings into insights for a community agency, supporting actionable strategies to improve public safety and community outcomes

Alpha Epsilon Pi Fraternity, New Member Class President

Winston-Salem, NC | August 2023 - December 2023

- Nominated by the over 20-person class to manage events and foster community within the organization
- Helped organize a yearly school fundraising competition, where our organization raised over \$1000 for the Comprehensive Cancer Center at Atrium Health Wake Forest Baptist