Ryan Webster

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EDUCATION

Virginia Tech, Blacksburg, VA — May 2025

- **Dual Degree**: B.S. Statistics, B.S. Computational Modeling and Data Analytics (CMDA) **GPA**: 3.76/4.00
- **Minors**: Computer Science and Mathematics

Shenandoah Valley Governor's School, Fishersville, VA — May 2021

SKILLS

- **Programming Languages**: Python (NumPy, Pandas, Matplotlib, Flask), R (tidyverse), Java, C, HTML/CSS, MATLAB
- **Databases and BI**: MySQL, Tableau
- **Other Tools**: Microsoft Excel, Git, LaTeX, Quarto, Jupyter Notebook

PROJECTS

Non-Contact Injury Analysis — January 2025 – May 2025

- Spearheaded development of a Cox Proportional Hazards model in R for Virginia Tech Football; analyzed telemetry and health data of 100+ athletes with 300+ variables to identify seven statistically significant indicators of non-contact injury.
- Developed an R script that imports player data and outputs individualized injury probabilities over custom time periods, supporting staff risk assessment.

Hospital Database System — January 2025 – May 2025

- Led development of a fictional full-stack hospital management system, working collaboratively with a cross-functional team of 4 to integrate secure user authentication and role-based access.
- Initiated design and implementation of a robust SQL-based relational database, ensuring data integrity and security. Engineered backend development using Flask (Python) and crafted a responsive, dynamic frontend with HTML/CSS, delivering an intuitive, personalized user experience.

Virginia Tech Pathways Analysis — September 2024 – November 2024

- Collaborated with the Virginia Tech Pathways Office to develop an interactive Shiny dashboard in R, analyzing 5 potential demographic influences on student feedback regarding Pathways course experiences.
- Partnered with staff to define key metrics, ensuring dashboard delivered actionable insights to inform decision-making and enhance program effectiveness.

Projecting At-Large Bids in March Madness — March 2024 – April 2024

- Trained and evaluated multiple classification machine learning models in R using historical NCAA college basketball ratings and statistics to predict which 36 teams would receive at-large bids to the March Madness Tournament, achieving 90% accuracy.
- Correctly predicted 36 out of 37 at-large bids for the 2025 March Madness Tournament.

RELEVANT COURSEWORK

- **Data Science and Machine Learning:** Intermediate Data Analytics and Machine Learning, Applied Multivariate Analysis.
- **Statistics**: Methods of Statistical Computing, Bayesian Statistics, Applied Time Series.
- **Data Systems**: Introduction to Database Management Systems.

CERTIFICATES

Google Advanced Data Analytics Specialization — June 2025

HONORS

- Top 3 Finalist in the 2023 Fall Semester VT CMDA Data Competition
- Dean's List in each semester at Virginia Tech