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Portfolio Website | LinkedIn | GitHub

SELECTED PROJECTS

Predicting Metacritic Game Ratings *(Jul 2023)*

- Developed predictive model helping indie game publishers identify potential successes early. Engineered custom features (release timing, playtime, multi-platform presence) using a Random Forest classifier.
- Achieved outstanding prediction accuracy (~93% success rate), significantly improving publishers' investment and marketing strategies.

Enhanced Retail Return Forecasting *(2024 – 2025)*

- Built an advanced forecasting pipeline (Random Forest, cross-validation) to accurately detect false product returns. Delivered intuitive dashboards for merchandising and logistics teams.
- Model accuracy near-perfect (~98%), cutting false-return costs by 15%, streamlining operations, and proactively managing inventory.

UK Road Safety Dashboard *(Aug – Sep 2024)*

- Designed interactive Shiny app visualizing accident data, seasonal trends, and identifying high-risk locations using statistical analysis.
- Enabled targeted resource allocation, improving coverage in accident-prone zones by approximately 10%.

Wine Quality Analysis *(2023 – 2024)*

- Conducted statistical analyses (PCA, MANOVA) and applied predictive models to identify chemical factors impacting wine quality.
- Correctly classified wine types with 98.9% accuracy, empowering vintners to enhance product consistency and customer satisfaction.

Emergency Room Severity Prediction *(May – Jun 2023)*

- Implemented machine learning to forecast patient severity from symptom data, optimizing ER triage workflows.
- Improved triage accuracy by 12% and reduced patient wait times by approximately 8%, enhancing patient outcomes and hospital efficiency.

PROFESSIONAL EXPERIENCE

Graduate Teaching & Project Assistant *Oregon State University, Corvallis, OR | Sep 2023 – Present*

- Designed and implemented new Data Science curricula (DS 101, DS 201) using interactive R and Quarto modules, benefiting over 100 undergraduate students.
- Led interactive labs (multivariate analysis, Bayesian statistics, visualization), earning consistently high student evaluations (≥ 4.7/5) and increasing student lab performance by over 20%.

Sales Associate / Data Analyst *The North Face, Woodburn, OR | Oct 2019 – Nov 2023*

- Conducted customer behavior analyses to optimize product placement and enhance sales strategies, driving sustained 8% growth in incremental sales.
- Mentored 15+ employees on data-driven decision-making, analytics reporting, and KPI tracking, reducing decision turnaround time by 30%.

TECHNICAL SKILLS

- **Languages & Tools:** R, Python, SQL, Git, Docker, Quarto, webR, Bash, Make

- **Data Engineering:** ETL processes, API integration (JSON/REST), targets, Airflow

- **Machine Learning & AI:** Regression, Classification, PCA, Time-Series Forecasting, Random Forest, Gradient Boosting, NLP, Bayesian Modeling, Hyperparameter Optimization

- **Visualization:** Shiny, Plotly, ggplot2, leaflet, Dashboards, data storytelling

- **Cloud & AI Platforms:** Google Cloud (BigQuery, Cloud Run, Vertex AI), AWS (S3, Lambda), OpenAI APIs (GPT), Hugging Face, Prompt Engineering

- **Communication:** Technical Writing, Curriculum Development, Conference Presentations

EDUCATION

M.S. in Statistics, *Oregon State University*

- **Focus:** Experimental design, Bayesian modeling, predictive analytics
- **Relevant Coursework:** Statistical Learning, Multivariate Analysis, Statistical Consulting

M.S. in Data Science, *Willamette University*

- **Focus:** Applied machine learning, cloud deployment, interactive visualization
- **Key Projects:** Cloud-deployed models, NLP classification, time-series forecasting

B.A. in Mathematics, *Linfield University*

- **Concentration:** Applied mathematics, data analytics
- **Activities:** Former Math Club President, Department Tutor

CERTIFICATIONS & AWARDS

- **Posit Opportunity Scholarship** *(2024)* Competitive selection for Data Science community contributions; attended Posit Conference (focused on advanced analytics and open-source tools).

- **Analyze Business Data with SQL** *(Coursera, 2023)* Comprehensive training on real-world SQL analytics and database querying.

- **Responsible Conduct of Research & Conflict of Interest** *(2023)* Certified in ethical standards and transparent data practices.

LEADERSHIP & COMMUNITY ENGAGEMENT

- **Consultant, OSU Statistics Consulting Center** *(2023 – Present)* Provide statistical consulting to diverse research teams, advising on analysis methods, study design, and reproducibility best practices.

- **Judge & Mentor, ASA DataFest Pacific Northwest** *(2023 – 2025)* Evaluated and mentored undergraduate teams on data analysis, visualization strategies, and effective technical communication.