

Alexander (Alex) Costello

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🌐 acostello34.github.io/portfolio/ 🐦 [in alexander-costello](#) 📺 [acostello34](#)

Summary

Accomplished Data Scientist with over 5 years of experience in developing data-driven solutions and leading analytics projects. Proven expertise in machine learning, statistical analysis, and data visualization. Adept at translating complex insights into strategic business decisions. Seeking a senior data scientist role to leverage advanced analytics skills and leadership experience to drive organizational success.

Professional Experience

DATA SCIENTIST - THE HERSHEY COMPANY

- Collaborate with various stakeholders to build value driven, data fueled, machine intelligent capabilities that enable informed choices and alignment of strategy to decision making
- Create and maintain R Shiny applications, APIs, and internal packages.
- Develop and maintain production-level models using R (models & dashboards cover multiple HR Centers of Excellence)
- Elevated talent and succession planning algorithms
 - Incorporate Factor Analysis into succession planning
 - Incorporate Cluster Analysis into accelerated develop program
- Work with talent acquisition to elevate current KPIs and create new metrics
 - Decreased critical role time to hire by 15%
 - Incorporate eightfold.ai data and insights
- Simulation of sales labor needed for new business
 - Analysis (MCMC) led to \$1MM savings in people SG&A (hiring vs overtime)

STATISTICAL PROGRAMMER - PFIZER

- Developed and maintained SAS programs for clinical trial data analysis, ensuring regulatory compliance
- Generated tables, listings, and figures for clinical study reports and regulatory submissions
- Enhanced R Shiny application for interim analysis in clinical trial protocol development

RESEARCH ASSOCIATE - VILLANOVA UNIVERSITY

- Executed longitudinal studies on healthcare workers' well-being during COVID-19
- Conducted statistical analysis and managed research data using R, SAS, and SPSS
- Analyzed the spatio-temporal relationship between air and surface temperature using R

INSTRUCTOR - BRYN MAWR UNIVERSITY

- Lab Instructor for Introductory Psychology; managed 5 TAs and guided students in research methods and technical writing
- Teaching Assistant for Intro to Data Science with R; designed coursework and mentored students

Education

VILLANOVA UNIVERSITY

M.S. Applied Statistics

MILLERSVILLE UNIVERSITY

B.A. Political Economics

B.A. Philosophy

Mathematics Minor

Technical Skills

- **Programming:** R, SAS, SPSS, Python, SQL
- **Data Visualization:** R Shiny, ggplot, plotly, Tableau
- **Statistical Methods:** Linear/Logistic Regression, ANOVA, Survival Analysis, Bayesian Methods, Stochastic Modelling, Linear Optimization, PCA, Factor Analysis, Natural Language Processing, Nonparametric Stats
- **Other Tools:** MS Office, Qualtrics, Azure

Publications

Various publications based on my graduate research work while attending Villanova University: [ResearchGate](#)

Other Experience

- Client Service Associate, Participant Engagement Specialist, Tax Advisor, Management Trainee: Developed interpersonal skills in financial services and organizational management
- DataFest Consultant, Career Day Facilitator, Tutor: Belief in importance of education and helping development of quantitative skills and career possibilities