Sarah Torrence

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Profile:

- Exceptionally driven and detail-oriented data scientist with 5 years of professional experience in the data field solving a variety of complex business problems.
- Inspired by the use of predictive modeling, analysis and algorithms to deliver insights to improve the world and have a passion for continual development.
- Known for strong oral and written communication skills in explaining technical results and a proven ability to quickly learn new skills and technologies.

Education:

Vanderbilt University, Nashville, Tennessee   Expected Graduation May 2022
Master of Science in Data Science

Denison University, Granville, Ohio   Graduated May 2016
Major in Mathematics and Minor in Economics, Cum Laude
Academic Achievements

- Dean's List   Fall 2013, Spring 2015, Fall 2015
- James T. Glerum Jr. Top 50 Scholar-athlete   2014, 2015, 2016
- Mortar Board National College Senior Honor Society
- Pi Mu Epsilon

Technical Skills:

- **Languages:** Python (pandas, numpy), R (tidyverse, ggplot, data.table), SQL, Git, LaTeX, VBA
- **Tools:** GitHub, R Studio, Anaconda, Jupyter Notebook, MySQL, SQL Server, Tableau, SPSS, SharePoint, InfoPath, Jira
- **Topics:** Linear Algebra, Linear Regression, Logistic Regression, ANOVA, Data Visualization, Clustering Analysis, Principal Component Analysis, Text Mining, Exploratory Data Analysis, Machine Learning

Research:

Research Assistant

Computational Biomolecule Discovery, Vanderbilt University, 2020 - Present

- This research focuses on integrating first-principles simulation and data-driven modeling to automatically evaluate, understand and design functional biomolecules for catalytic and biomedical applications. I am currently helping develop a new database to integrate enzyme structure, kinetics, and atomistic data in a central location so it can be used to develop machine learning models to design protein mutation for functional enhancement.

Undergraduate Capstone

Analysis of Domestic Violence: Northern Territory Australia, Denison University, 2016

- Worked on a semester long research project analyzing 20,000 dyads (unique victim-offender pairings) from police reports on domestic violence in the Northern Territory of Australia. Using statistical analysis, this research focused on the harm severity and frequency of domestic violence cases, including how they may escalate over time in order to prevent or lessen harm from future incidents.

Relevant Work Experience:

Senior Data Analytics Analyst, Jacksonville, FL   **August 2017 – August 2020**
Ernst & Young, LLP

- Aided client audits in the media and advertising industry through automating processes utilizing programs that handle large volumes of raw log data, customized for each client, enhancing the accuracy and complexity of the audit.
- Assisted a global bank in the data management of high-risk customer population by developing automated solutions to manage customer populations and generate production, exception and executive level reports to track quality and progress.
- Trained and co-led a 16-member team coordinating client outreach for customer information, utilizing VBA to automate sending over 10,000 emails, saving about 410 resource hours.
- Steered initiative to develop and implement R trainings for analysts by developing coursework, organizing working sessions and serving as a subject matter expert.
- Developed guidance documents and training templates, lead walkthrough sessions and provided technical guidance.

- Recognized by client stakeholders for delivering exceptional quality work products in a high-pressure environment under tight timelines, received Employee of the Month September 2019, and earned an early promotion due to excellent leadership and technical skills.
- Assisted several internal client teams by building automation tools using Python, including a web scraping tool, a resume crawler, mahalanobis distance calculator and audit metric recalculation tool.
- Presented automation tools and pitched new work to client and internal stakeholders on several occasions as well as represented my Data Analytics practice at the Grand Opening of the EY San Antonio office presenting in front of local government officials and EY national leaders.

Program Coordinator for the Data Analytics Major, **Granville, Ohio**   **August 2016 – July 2017**
Denison University

- Assisted in building out course material for the Data Analytics Introductory course and served as a Teacher's Assistant.
- Facilitated student research using ANOVA and regression analysis.
- Created and managed a network of alumni and local companies forming internships for current students and bringing in guest speakers, panels and job fairs.
- Acted as the liaison between the Data Analytics program and all other campus establishments.

Visiting Scholar as a Data Analytics Consultant, **Cambridge, England**   **June 2016 – August 2016**
Cambridge Institute of Criminology, Cambridge University

- Collaborated with Dr. Lawrence Sherman and master students combining my statistical and analytical expertise with their criminology knowledge to conduct the latest research in evidence-based policing.
- Conducted research through data intake, data cleansing, statistical modeling and data visualization resulting in a publication on the crime harm in victim and repeat victims in Dorset, England.

Data Analytics Intern, **Budapest, Hungary**   **September 2014 – January 2015**
Secret Sauce Partners

- Aided SSP's analytics team in proving increases in conversion rates and reduction in returns through A/B testing by producing weekly impact, overlay and coverage reports on retailers' conversion rates and revenues.
- Developed reports in PowerPoint for the team's weekly analytics meetings and customer presentations.

Publications/Certifications:

- Publication:
  > Dudfield, G., Angel, C., Sherman, L.W., Torrence, S. Camb J Evid Based Polic (2017) 1: 38.
  > https://doi.org/10.1007/s41887-017-0001-3
- EY Badges through Acclaim: Bronze Data Integration, Bronze Data Architecture

Volunteer and Leadership Experience:

- Lead of the Giving Back Committee at EY, working with numerous charitable organizations and foundations locally in Jacksonville to involve EY in their events and campaigns.
- Captain for EY Connect Day, the firm's annual day of service, organizing and leading a group of coworkers to volunteer at a local organization fighting recidivism and helping those who were incarcerated get back on their feet.
- 4-year varsity athlete on the tennis team at Denison University, leading the team to a conference title and nationals as a captain my senior year.
- Served as a one-on-one tutor in Calculus, Multivariate Calculus and Linear Algebra for 2 years at Denison University.
- Served as a Teacher's Assistant for Calculus as a senior at Denison University.
- Continuing Education Chairmen of the Delta Chi Chapter of Delta Delta Delta, organizing and leading the slating of new officers, attending the Collegiate Leadership Conference in Dallas on behalf of my chapter and ensuring all other chapter officers are maintaining their duties.