SPENCER PRENTISS

DATA SCIENTIST

We've all been there, in a group project where 2 people wind up doing most of the work. I'm one of the 2.

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SKILLS

Python (Pandas, Numpy, Skit-Learn), R, Java, SQL (MySQL, SQLite), Excel, SAS, Tableau, Hadoop, Spark

EDUCATION

Purdue University **08/2019-12/2022**

B.S. in Data Science and B.S. in Applied Statistics **GPA: 3.68**

Purdue Sports Analytics Club **08/2019-12/2022**

Met with fellow sports analytics fanatics, discussing sporting events, listening to guest speakers, and working on analytics projects.

Relevant Coursework: Data Mining and Machine Learning, Information Systems, Theoretical Statistics, Probability, Intro to Time Series, Intro to AI, Large Scale Data Analysis, Applied Regression Analysis

WORK EXPERIENCE

Data Analyst Consultant **01/2021-Present**

Leveraged data analysis and visualization to guide strategic decisions, enhance performance, and bridge the gap between data and non-technical audiences, revealing data's impactful potential.

- Elevated high school football team's win and one-possession game percentages by 7% and 13.4% respectively, through Python and Monte Carlo simulations.
- Create a real-time Tableau app, empowering defensive staff to instantly predict and adjust to upcoming offensive plays optimizing coaching responsiveness.
- Developed comprehensive metrics and KPIs through election data analysis, guiding a 3rd party campaign manager's strategic focus.
- Presented comprehensive data insights to diverse audiences, effectively conveying the potential of data understanding and its impact.

Teaching Assistant - Purdue University-West Lafayette, IN **07/2021-12/2022**

Engaged as a Teaching Assistant to educate and support students in programming and technical skills, elevated student comprehension and performance resulting in improved understanding and higher test scores.

- Taught Java, Python, GitHub, and Unix environments to 200+ students.
- Collaborated with 20 TAs to address student inquiries, prepare study materials, and conduct exam reviews.
- Developed Python exercises teaching fundamental programming, data structures, and web scraping concepts.

PERSONAL PROJECTS

Political Science Research Project

Lead a 6-person team investigating judicial opinion complexities, driven by the challenge of creating a project encompassing the full data science life cycle.

- Conducted data scraping, cleaning, and analysis of roughly 10GB of opinions from 12 appellate courts.
- Employed advanced natural language processing (NLP) techniques, such as sentiment analysis and LDA topic modeling, to derive meaningful metrics for complexity, polarity, and subjectivity.
- Collaborated with a professor to seamlessly integrate the research findings and methodology into ongoing research initiatives.

Loan Default Analyzer

Embarked on the project as extra credit for a class to satisfy my curiosity about machine learning and enhance my skill set.

- Developed a machine learning model using Random Forest Classifier to determine loan default likelihood.
- Conducted feature selection on a dataset with over 1 million data points to identify the most relevant features for model development.
- Used standardization and sampling techniques, such as normalization and random under-sampling, to improve model performance and mitigate bias
- Successfully built an optimized model with enhanced predictive power, increasing accuracy in determining loan default probabilities.

Restaurant Management Web App

Worked in a 5-person team to develop a restaurant management web app, learning web development from scratch over spring break.

- Transformed from zero web development knowledge to team leader after learning the Django framework on a Tuesday over spring break.
- Leveraged the Django framework to integrate a SQLite database into the application's architecture.
- Utilized indexing and isolation levels to optimize the performance and consistency of the database.
- Designed and successfully implemented complex triggers and prepared statements, effectively updating and managing the application's data.