

# 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, Beautiful Soup), R, SQL, Excel, SAS, Tableau, Data Visualization, Web Scraping, NLP, Data Analysis, Data Mining, AI

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## 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

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## WORK EXPERIENCE

### Data Analyst Consultant

01/2021-Present

Leveraging data analysis, visualization, and innovative metric development to inform strategic decisions, enhance performance, and drive results in diverse organizations, including political campaigns, athletics, and sports.

#### - Political Organization - Project: Campaign Strategy Optimization with Data Analysis

- Conducted data analysis for the state of Maine to strategically allocate campaign funds and pinpoint target areas, resulting in optimized resource allocation and enhanced campaign effectiveness.
- Analyzed polling data to identify potential peel-off voters, enabling the campaign to tailor messaging and outreach efforts for maximum impact.
- Developed novel metrics and KPIs during data analysis, introducing alternative viewpoints and insights that enriched the decision-making processes.
- Delivered presentations to party leadership, directly shaping strategic decisions by providing data-driven insights and actionable recommendations.

#### -Purdue Baseball - Project: Elevating Athletic Training with Data Analysis and Tableau

- Liaised with Purdue Baseball's Assistant Director of Strength and Conditioning to develop two Tableau dashboards.
- Engineered dashboards for real-time tracking of individual and team weight room performance and ongoing athletic workload metrics.
- Empowered coaches and more than 40 athletes to make data-driven decisions, resulting in the establishment of an internship program.

#### -Grand Ledge High School Football - Project: Data-Driven Strategies for High School Football Success

- Elevated high school football team's win and one-possession game percentages by 7% and 13.4% respectively, through Python and Monte Carlo simulations.
- Created a real-time Tableau app, empowering defensive staff to, within 5 seconds, predict and adjust to upcoming offensive plays optimizing coaching responsiveness.
- Utilized ggplot2 and highcharter libraries in R to create Sankey charts and play cards, improving coaches' understanding of data analysis.
- Work was published in Delen, D., Shadra, R., and Turban, E. "Business Intelligence, Analytics, Data Science, and AI: A Managerial Perspective 5th ed.": 8-12.

### 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.
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## PERSONAL PROJECTS

### NLP-Powered Judicial Opinion Analysis

Led 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, lemmatization, CountVectorizer, 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.