

MEGAN SIN

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EDUCATION

Worcester Polytechnic Institute

Master of Science in Data Science (GPA: 4.0/4.0)

Bachelor of Science in Data Science (GPA: 4.0/4.0)

Worcester, MA

Expected May 2024

Expected May 2024

EXPERIENCE

JPMorgan Chase & Co.

AI & Data Science Summer Analyst

Plano, TX

Jun. 2023 – Aug. 2023

- Aggregated transactional data on spending, point redemption, and ad interactions using SQL, decreasing time taken to respond to stakeholder inquiries regarding customer behavior trends by 10x
- Centralized 200+ customer behavior metrics from 15 data sources into one data table, reducing query time by 90%
- Interviewed five executives and analysts to discern KPIs and preferred visualizations in alignment with business needs
- Conceptualized two internal Tableau dashboards with intuitive KPI data cards and time-based customer behavior charts
- Presented project summaries to directors, highlighting deliverables' strategic alignment and business impact

The Hanover Insurance Group

Community Relations Intern

Worcester, MA

Jun. 2021 – Aug. 2022

- Forecasted workplace changes and supported diversity initiatives by analyzing five years of demographics in Excel
- Amplified job posting engagement by 25% using Power BI, analyzing peak engagement times and outreach effectiveness
- Modeled CEO matching strategies for company's giving campaign in Excel, forecasting participation and overall success
- Planned two company outings, managing logistics and inquiries, cultivating high attendee satisfaction and engagement

PROJECTS

PoetryPal: Poetry Recommender | Python (TensorFlow, Numpy, scikit-learn), Git

Oct. 2023 – Dec. 2023

- Developed a poetry recommendation system using collaborative filtering to recommend poems catered to user interests
- Implemented Neural Collaborative Filtering, utilizing deep learning to capture complex user-poem interactions

Computational & Data Science Tools for Environmental Science: Beecology Project Aug. 2023 – Present

- Expanded on citizen science project in collaboration with professors at WPI and UMass to provide data insights on butterfly species, population, and behavior on a team of four members
- Created six interactive data visualizations using D3.js to encourage application visitors to explore data patterns
- Spearheaded the integration of butterfly data into the data analysis page, enabling seamless data flow for visualizations

SpotBot: Fake Yelp Review Detector | Python, Amazon SageMaker, Amazon S3

Jul. 2023

- Programmed an automated fake Yelp review detection tool with 87% accuracy, leveraging BERT in Amazon SageMaker
- Conducted EDA to comprehend the distribution of reviews and identified that 15% of the dataset comprised fake reviews
- Streamlined a data pipeline using PyTorch to preprocess and tokenize data, allowing the model to analyze contextual cues

AI Resume Parser | Python, Flask, HTML/CSS

Dec. 2022

- Engineered a full-stack web application to screen candidate resumes and identify missing keywords
- Built a Python backend to extract key information from resumes using named entity recognition and other NLP techniques

SKILLS

Certifications: AWS Certified Cloud Practitioner, DataCamp Associate Data Analyst

Machine Learning: Classification, Regression, Clustering, NLP, Feature Engineering, Recommendation Systems

Languages: Python, SQL (PostgreSQL, MySQL), Java, R, LaTeX, JavaScript, HTML/CSS

Libraries: scikit-learn, pandas, matplotlib, ggplot, PyTorch, nltk, BeautifulSoup, D3.js

Tools: Tableau, Power BI, Excel, Teradata, MongoDB, Amazon SageMaker, Git, Bitbucket, DataRobot, Azure

LEADERSHIP

Vice President | Women's Club Volleyball, WPI

Aug. 2023 – Dec. 2023

Treasurer | Society of Asian Scientists and Engineers, WPI

May 2023 – Dec. 2023

Assistant Philanthropy Chair | Phi Sigma Sigma, WPI

Jan. 2023 – Dec. 2023

Design Chair | Phi Sigma Sigma, WPI

Jan. 2022 – Dec. 2022