# **Megan Sin**

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## **EDUCATION**

**Worcester Polytechnic Institute** 

Worcester, MA

Master of Science in Data Science

Expected May 2024

Bachelor of Science, Major in Data Science GPA: 4.0/4.0 (Dean's List for 6 Semesters) Expected May 2024

**Relevant Coursework:** Data Mining in Databases, Database Management Systems, Business Intelligence, Artificial Intelligence, Machine Learning, Deep Learning, Information Retrieval, Big Data Management

#### **EXPERIENCE**

JPMorgan Chase & Co.

Plano, TX

AI & Data Science Summer Analyst

Jun 2023 - Aug 2023

- Unified 200 customer features from data tables using ETL and SQL, simplifying data access for streamlined analysis
- Empowered business leaders to extract customer insights using intuitive Tableau dashboards
- Automated documentation compilation via a Python script, improving repository maintenance efficiency

#### The Hanover Insurance Group

Worcester, MA

**Community Relations Intern** 

Jun 2021 – Aug 2022

- Revamped CEO matching strategies and boosted company-wide giving campaign engagement using an Excel model
- Crafted actionable insights to improve job listing engagement using Excel and Power BI dashboards

## **PROJECTS**

## Computational & Data Science Tools for Environmental Science: Beecology Project

Aug 2023 - Present

- Developed citizen science project in collaboration with professors at WPI and UMass to provide data insights on butterfly species, population, and behavior
- Provided essential data insights to app users via variety of visualizations on a team of four members
- Created interactive data visualizations using D3.js to encourage application visitors to explore data patterns

#### **SpotBot: Fake Yelp Review Detector**

Jul 2023

- Implemented an automated fake review detection tool with 87% model accuracy using Python and BERT NLP
- Uncovered class imbalances and understood data distributions via exploratory data analysis (EDA)
- Prepared review data for BERT classifier via PyTorch input pipeline with tokenization

Al Resume Parser Dec 2022

- Developed web application to screen candidate resumes and automatically identify missing keywords
- Extracted key information using named entity recognition and other NLP techniques in a Python backend

## **Predictive Modeling for Stroke Diagnosis**

Dec 2022

- Investigated statistical relationships using correlation matrix in R, and determined risk factors for stroke prediction
- Reduced bias and improved accuracy by employing SMOTE to address the 5% stroke rate imbalance in the dataset

## **SKILLS**

Certifications: AWS Certified Cloud Practitioner (Sep 2023), DataCamp Associate Data Analyst (Aug 2023)

Programming Languages: Python, SQL, Java, R, HTML, CSS, MATLAB, JavaScript

Libraries: scikit-learn, pandas, matplotlib, ggplot, PyTorch, nltk, BeautifulSoup, SQLAlchemy

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

#### **LEADERSHIP**

Vice President, Women's Club Volleyball, WPI

Aug 2023 - Dec 2023

Identified team's strengths and weaknesses to design tailored practice plans and elevate members' skills

Treasurer, Society of Asian Scientists and Engineers, WPI

May 2023 - Dec 2023

Managed \$50,000 budget, processed expenses, and advised the executive board on cost-saving initiatives

Assistant Philanthropy Chair, Phi Sigma Sigma Fraternity, WPI

Jan 2023 - Dec 2023

Coordinated fundraisers to support local schools in the community and the Kids in Need Foundation