

# Aamodini Gupta

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## WORK EXPERIENCE

### Northwestern Mutual Life Insurance Company

Senior Data Scientist

New York, NY

Jan 2023 - Present

- Leading the development of a Cox Proportional Hazards (CPH) model to better stratify risk for life underwriting
- Achieved significant improvements over traditional manual underwriting processes using cardiovascular health indicators that led to massive annual savings
- Utilized advanced statistical techniques in multiple linear and regularized regression models, including elastic net penalization for model accuracy and polynomial expansion for handling non-linear relationships

Data Scientist

Mar 2020 - Dec 2022

- Developed and deployed a fraud detection model that identifies misrepresentation of information in the online medical history questionnaire based on clickstream behavior
- Utilized Random Forest and bivariate analyses for variable selection. Experimented with various techniques for rare-event modeling including data imputation and targeted hyper-parameter tuning
- Onboarded new team members as the project expanded

Data Scientist Intern

May 2019 - Aug 2019

- Developed a model to predict the likelihood of a new client qualifying for the most favorable risk category by underwriters
- Experimented with binary classification models such as XGBoost, Random Forest, and Logistic Regression

### Bellwether Analytics

Analyst Intern

Chicago, IL

Jun 2017 - Aug 2017

- Researched and procured data about companies in the pharmaceutical industry relevant to the project
- Created regression models in R and employed CAGR to gain insight on the data collected

## EDUCATION

### University of Illinois at Urbana Champaign

Master of Science in Statistics

Dec 2019

- Graduate Teaching Assistant for Calculus 1,2,3, Differential Equations, Probability Theory (Math 461)
- Assisted the department in creating a test bank for each of the courses

### University of Illinois at Urbana Champaign

Bachelor of Science and Letters: Mathematics – Concentration in Applied Mathematics

May 2018

- Double Major with Applied Statistics and Minor with Astronomy

## PROFESSIONAL DEVELOPMENT

### Volunteer Data Scientist

Community Development Alliance

Milwaukee, WI

Mar 2024 - Present

- Developing an automated geospatial clustering tool to identify optimal locations for affordable housing in Milwaukee, using Python in Azure

### Workshop Developer and Facilitator

Grace Hopper Celebration: Level-up Lab

Orlando, FL

Sep 2022

- Designed an interactive session that engaged professionals in applying machine learning techniques to understand model biases, in an attempt to encourage ethical AI practices

Python · R · SQL · TensorFlow · Keras · PyTorch · Scikit-Learn · MLFlow · Hydra · Spark · AWS · DataBricks · Docker  
Machine Learning · Advanced Statistical Analysis · Deep Learning