Hajar Ahmed

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EDUCATION

University of Minnesota, College of Liberal Arts   *Minneapolis, MN*

Bachelor of Science in Statistical Science

Minor in Computer Science and Mathematics   *September 2022-May 2025*

WORK EXPERIENCE

University of Minnesota School of Statistics   **Jun. 2024 – Aug. 2024**

Summer Undergraduate Statistical Consultant   *Minneapolis, MN*

- Collaborated with a group of undergraduate students to conduct MANOVA analysis for graduate research.
- Utilized RStudio to manipulate data to ensure the effectiveness and readability of statistical tests.

University of Minnesota Institute for Social Research and Data Innovation   **Oct. 2022 – Dec. 2022**

Research Assistant   *Minneapolis, MN*

- Reviewed 300 confidential survey responses from a cohort study and logged them into an electronic database to allow experts to pull research findings from the database.
- Re-examined the data quality of hundreds of data entries with a team of research assistants to produce research findings supported by high quality data.

PROJECTS

MinneMUDAC 2025 Data Science Competition: Big Brothers Big Sisters Twin Cities

- Placed 1st in the undergraduate division for significant Insights for Big Brothers Big Sisters Twin Cities
- Imputed missing data using Multivariate Imputation by Chained Equations
- Collaborated with three students to conduct statistical procedures, including survival analysis, log rank-based tests, sentiment analysis, hyperparameter tuning, and fitting regression gradient boosting models.
- Presented findings to the CEO of Big Brothers Big Sisters Twin Cities and academics from across the nation

SARIMA Comparative Analysis for Crime Forecasting

- Conducted a time series analysis using SARIMA to forecast crime in Minneapolis for March 2025.
- Implemented multiple SARIMA models, tested stationarity and seasonality, and conducted cross-validation to select the best model based on performance metrics.
- Identified insights regarding crime patterns in Minneapolis along with actionable steps to reduce crime.

Poro Rank

- A serverless web application hosted in AWS that ranks League of Legends esports teams.
  - https://devpost.com/software/pororank
- Adjusted the Glicko-2 ranking algorithm to accommodate factors such as tournament levels.

EXTRACURRICULARS

Undergraduate Statistics Reading Group   **Jan.2024 – Apr. 2025**

- Read over 10 Academic statistical papers regarding non-parametric methods, genomics models, Astrostatistics, and gradient boosting tree-based methods.
- Discussed statistical academic literature with a variety of PhD and undergraduate statistics students.

SKILLS

- **Technical Skills:** Python, Jupyter Notebook, SQL, Git, R, Java, Tableau, Microsoft Excel, LaTeX.