Ayman Khan

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Education

Middlebury College Middlebury, VT

Candidate for Bachelor of Arts, Major in Computer Science

Expected May 2025

Relevant Coursework: Data Structures, Machine Learning, Computer Graphics, Regression, Delving into Data, Statistical Learning, Algorithms and Complexity, Software Development, Natural Language Processing

Languages: Python, R, Java, JavaScript, HTML, CSS, Stata, SQL, Excel

Frameworks and Libraries: React, NextJS, Flask, Material-UI, scikit-learn, pandas, NumPy, Tesseract

Experience

Green Mountain Care Board

Montpelier, VT

Data Analyst Intern

June 2024 - August 2024

- Evaluated provider network adequacy across multiple insurance product subtypes, using patient-provider ratios to identify gaps in healthcare access.
- Analyzed datasets covering over 200,000 healthcare providers and 2 million patients to assess network adequacy, provider availability, and access across various insurance plans.
- Created detailed visualizations and reports, highlighting trends and disparities in provider networks, which
 informed policy recommendations to improve Vermonters' healthcare access.
- Utilized R to process large datasets and generate actionable insights, enhancing the organization's data-driven policy-making approach.

Fairbanks Museum & Planeterium

Hybrid, St. Johnsbury, VT

Data Analyst Intern

June 2023 - August 2023

- Used the Tesseract machine learning library in Python to convert over 1000 handwritten flashcard data to Excel.
- Employed R libraries (dplyr, tidyverse, ggplot) for data analysis and visualization of flower bloom and fruit dates trends.
- Managed an online Zooniverse data dashboard for publishing visualizations and data.

Beyond Borders Orphan Aid

Remote, Mandera, Kenya

Senior Web Developer (Part-Time)

January 2024 - Present

- Developed the website for a non-profit organization supporting orphan education in Mandera, Kenya using JavaScript, HTML, and CSS.
- Currently converting the website to React framework for enhanced performance.
- Creating a database to store information about newsletter subscribers and donors.

Side Projects

Investigating the Attributes that Influence Player Ratings in FC24

- Utilized Support Vector Machine (SVM) to predict player ratings in FC24 based on physical attributes.
- Applied hierarchical clustering and principal component analysis to assess attribute impacts on player ratings.
- Conducted data analysis and visualizations using R.
- https://avmankhan2003.github.jo/avmansportfolio.github.jo/assets/FinalStats.html

Market Value Predictor

- Implemented machine learning models (random forest regression, LASSO) to predict soccer player market values
- Conducted data manipulation and extensive analysis using R, including web scraping.
- Performed feature engineering in Python with scikit-learn, pandas, and numpy.
- https://aymankhan2003.github.io/posts/project/ProjectBlogPost.html