Ian Menachery

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Education

Northeastern University, Khoury College of Computer Science — Boston, MA

Bachelor of Science in Data Science and Economics — *May 2027 | GPA: 3.6/4*

Relevant Coursework: Advanced Programming with Data, Database Design, Information Visualization, Discrete Structures, Statistics for Economists, Microeconomic Theory, Macroeconomic Theory, Foundations of Data Science, Applied Econometrics

Technical Skills

Languages: Python, Java, SQL, C#, R

Tools and Frameworks: VScode, IntelliJ, Eclipse, Docker, DataGrip, PyCharm, Excel, Tableau, PowerBI, GitHub, Git, NumPy, Pandas, Scikit-learn, Matplotlib, Flask, Seaborn, Jupyter Notebook

Experience

Knack Tutor — July 2024 – Present

Tutor — *Boston, MA*

- Delivered over 50+ personalized tutoring sessions in microeconomics, macroeconomic theory, and discrete structures, breaking down intricate concepts into easily understandable components to significantly improve student performance and confidence.
- Create and tailor engaging, student-focused lesson plans that utilized practical examples and real-world scenarios, enabling students to grasp complex theories and apply them effectively in academic and professional settings.
- Adapted teaching strategies to accommodate diverse learning styles, fostering an inclusive and interactive environment that empowered students to overcome academic challenges and achieve measurable success in their coursework.

The Town of Greenwich — June 2024 – August 2024

Operations Intern — *Greenwich, CT*

- Delivered exceptional customer service by promptly addressing visitor inquiries and concerns, maintaining a welcoming and friendly atmosphere, and directly contributing to a 20% increase in guest satisfaction survey ratings over the summer.
- Collaborated closely with a team of lifeguards and beach managers to implement and oversee safety protocols, enforce regulations, and provide logistical support for special events, ensuring seamless operations during high-traffic periods.
- Streamlined daily operations by efficiently managing rental equipment and coordinating with maintenance teams.

Mamaroneck Avenue School — September 2023 – June 2024

Coding Instructor — *Mamaroneck, NY*

- Led weekly after-school coding sessions for elementary school students, introducing fundamental programming concepts such as variables, conditionals, and functions, while fostering a collaborative and engaging learning environment.
- Developed and delivered a structured curriculum that combined theoretical knowledge with hands-on activities, enabling students to build simple projects like interactive games, and a variation of Pong using languages such as Scratch.
- Mentored students in debugging code and solving complex problems, enhancing their critical thinking and problem-solving skills while cultivating a passion for computer science.

Projects

Movie Regression Analysis — Python, Regression Modeling

Class Project — *Sep 2024 - Dec 2024*

- Analyzed a movie dataset enriched with over 10,000 records using pandas and numpy, integrating API data (IMDb and Rotten Tomatoes) to process key features like ratings, genres, and runtime, achieving 100% data integrity through comprehensive cleaning
- Built a ridge regression model to predict IMDb scores with a R^2 of 0.78, revealing significant predictors such as runtime (coefficient = 0.02) and genre-specific binary variables like "Drama" (coefficient = 0.15), highlighting their influence on movie ratings.
- Addressed multicollinearity (VIF ¡ 5) and ensured homoscedasticity, validating assumptions with residual and Q-Q plots using matplotlib and seaborn, and reported on feature interactions' impact on model accuracy.

Poker Hands Probability Analysis — Python, Data Science, Statistical Modeling

Personal Project — *March 2024 - June 2024*

- Analyzed a dataset of 1,000,000 poker hands to compute probabilities for various outcomes, such as 1 in 254 for a full house or 6.6% for a flush, and visualized the results using detailed Sankey diagrams and comprehensive tables to highlight key patterns.
- Designed and implemented custom Python methods to simulate poker hands at scale, enabling efficient computation of probabilities, expected values, and the precise modeling of random card distributions for robust analysis.
- Generated data-driven insights by running millions of simulations to evaluate the influence of hand probabilities on optimal gameplay strategies, presenting results through compelling visualizations and actionable summaries tailored for decision-making.

Additional Information

Soft Skills: Problem Solving, Strategic Thinking, Sales, Public Speaking, Entrepreneurship, Project Management, Business Analytics, Market Research, Leadership, Adaptability, Optimization

Leadership: Ambassador @ Entrepreneurship Club, President of Investment Club, Real Estate Chair @ Delta Kappa Epsilon

Organizations: Delta Kappa Epsilon, Entrepreneurship Club, CTF (Cybersecurity) Club, Econ Society, Dollars and Sense

Hobbies: Personal Finance, Poker, Fitness, Chess, Lacrosse, Volleyball, Coding, Hiking, Reading

Languages: Fluent in English, Conversational Spanish