

Ethan Vaz Falcao

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EDUCATION

Worcester Polytechnic Institute

Worcester, MA

Bachelor of Science in Data Science & Mathematical Sciences

Minor in Computer Science

Expected: May 2024

Relevant Coursework: Machine Learning, Algorithms, Object Oriented, Modeling and Data Analytics, Data Analytics and Statistical Learning, Principles of Real analysis, Linear Algebra, Combinatorics, Probability Theory, Mathematical Statistics

Awards: Pi Mu Epsilon (U.S. Mathematics Honors Society)

PROFESSIONAL EXPERIENCE

Clora

Boston, MA

Business Analytics Intern

June 2021 - September 2022

- Analyzed payroll administration of healthcare consultants and ensured accuracy and completeness of their contracts.
- Prepared monthly operational and financial reports that were used to improve budgeting efficiency.

United Solutions

Leominster, MA

Business Analytics Intern

June 2022 - September 2022

- A Developed Power BI dashboards with dynamic DAX formulas that reduced report generation time and improved data visualization, enabling more informed decision-making based on key trends.
- Implemented daily IQMS Reports using Python, reducing report generation time and providing critical insights into labor productivity trends.

PROJECTS

Finding the Most Optimal NBA team for the 2022-23 Season

https://ethanfalcao.github.io/nba_team.html

Created a Linear Optimization Model, using Python-Pandas and Google's or-tools Linear-Solver, to output the most optimal NBA Team for the upcoming '22 -'23 NBA Season.

Yelp Dataset Challenge: Detecting Fake reviews and Business Attributes

https://ethanfalcao.github.io/Yelp_dataset_Challenge.html

Predicted business attributes and identified fake reviews using machine learning techniques applied to the Yelp dataset.

Predicting the World Cup with Machine Learning

<https://ethanfalcao.github.io/worldcup.html>

Compiled and analyzed data regarding football stats of all international play from 1872 and evaluated and selected the most effective machine learning algorithm to predict the winner of the world cup.

LEADERSHIP EXPERIENCE

Data Science Club Treasure

Worcester, MA

WPI

January 2023 - Present

- Informed the exec board of all the financial activities.
- Implemented a new record-keeping system that improved transparency and accuracy of financial transactions.

IT Volunteer

Worcester, MA

Catholic Charities

June 2022 - September 2022

- Managed and executed the database migration to Salesforce.
- Maintained and repaired hardware and software

SKILLS

- **Languages:** Python (Pandas, Matplotlib, Seaborn, Sklearn, Tensorflow, Or-tools), R, SQL, Java, Dax, MATLAB
- **Analysis Techniques:** Logistic Regressions, Decision Trees, Neural Networks, Random Forests, Hypothesis Testing, A/B Testing
- **Tools:** Power BI, Kaggle, Jupyter, VS Code, PyCharm, RStudio, Azure, Salesforce, Tableau, Excel