Michele Autorino

US Citizen | 804-332-7583 | ma152@illinois.edu | https://github.com/mikeyautorino2

Education

University of Illinois, Urbana-Champaign Expected Graduation: May 2027

Bachelor of Science in Computer Engineering & Statistics

- **Relevant Coursework**: Vector Calculus, Statistics and Probability I & II, Discrete Mathematics, C++ Programming, Object-Oriented Programming, Linear Algebra, Data Structures & Algorithms, Computer Architecture, Stochastic Processes

Experience

Undergraduate Research Assistant May 2025 – Present

Electronic Visualization Lab *Chicago, IL*

- Designing and implementing a 3D graphics viewer demonstration in Unreal Engine leveraging the internal Blueprints library and C++ scripting in a team of three to showcase dynamic visualizations.

Undergraduate Research Assistant January 2025 – May 2025

University of Illinois, Urbana-Champaign *Urbana, IL*

- Developed a custom WaveForms script in JavaScript to simulate magnetic resonance on an Analog Discovery 2 FPGA for a class of 100+ students

Consumer Insights Intern July 2024 – September 2024

Beats by Dre *Remote*

- Conducted sentiment analysis on customer reviews with Gemini API & NLTK, extracting user-preference insights
- Authored 500+ lines of Python in Colab to benchmark Beats vs competitors, informing marketing strategy
- Scraped, cleaned, & visualized Amazon sales data via BeautifulSoup, pandas & NumPy, guiding strategic outlook

Projects

Link Analyzer Webcrawler July 2025 – July 2025

Node.js, Express.js, PostgreSQL, React, CSS3

- Developed a full-stack Link Analyzer & Web Crawler application using Node.js and Express.js, enabling users to extract and analyze webpage metadata (titles, descriptions, headings, links, images).
- Implemented robust REST API endpoints with Axios for HTTP requests and Cheerio for efficient HTML parsing and web scraping.
- Configured and managed a PostgreSQL database (v14) for persisting analysis history, enabling users to view, revisit, and re-analyze previous URL analyses.

Fraud Call Detection Model February 2025 – May 2025

Git, NLTK, Pandas, scikit-learn

- Collaborated with a team of three to co-develop a machine learning pipeline for fraud call detection, leveraging Logistic Regression.
- Preprocessed and cleaned a dataset of over 20,000 call transcripts, engineered TF-IDF features, and optimized model hyperparameters in scikit-learn, resulting in 95% classification accuracy with 4,000+ features.

NBA Player Valuation Model December 2024 – January 2025

BeautifulSoup, Pandas, NumPy, Jupyter, VS Code, Seaborn/Matplotlib, scikit-learn

- Developed a machine learning model in Python with `pandas` and `scikit-learn` to predict NBA player value (*VORP*), achieving a test R^2 of 0.78 via Lasso regression and 5-fold cross-validation.
- Engineered features and scraped datasets with BeautifulSoup, reducing dimensionality by 30% through L1 regularization while retaining key predictors like usage rate and win shares.
- Implemented clustering methods to identify player archetypes (e.g., high-usage stars) and visualized key insights with Matplotlib/Seaborn.

Skills & Additional

Languages: Python, C++, JavaScript/TypeScript, Java
Technologies/Tools: Spring, Docker, scikit-learn, pandas, Natural Language Toolkit, BeautifulSoup, Node.js, Tailwind CSS, React, PostgreSQL
Soft Skills: Portuguese (Fluent), Italian (Fluent), English (Fluent), Spanish (Professional Proficiency)