

Michele Autorino

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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

Research Assistant

June 2023 – August 2023

Case Western Reserve University

Cleveland, OH

- Leveraged NumPy, pandas, & Matplotlib to clean & visualize data from 150+ trials, improving analysis accuracy
- Prepared & calibrated 30+ liquid-crystal samples for high-precision testing
- Analyzed soft-material ratio effects on random lasing to guide experimental design

PROJECTS

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, Next.js, React, PostgreSQL

Soft Skills: Portuguese (Fluent), Italian (Fluent), English (Fluent), Spanish (Professional Proficiency)