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

Software Developer — May 2025 – August 2025

Electronic Visualization Lab — Chicago, IL

- Built an interactive 3D graphics viewer in Unreal Engine, integrating C++ modules with Blueprints for dynamic scene rendering and real-time asset manipulation
- Deployed to support 30+ users, enabling immersive visualization and interactive exploration of 3D environments

Software Developer — January 2025 – May 2025

University of Illinois Department of Physics — Urbana, IL

- Implemented FFT algorithms with Tukey windowing in a custom JavaScript extension for WaveForms to simulate magnetic resonance on Analog Discovery 2 FPGA for graduate physics class
- Enhanced signal accuracy and streamlined lab demonstrations, improving experiment clarity for 100+ students

Consumer Insights Extern — July 2024 – September 2024

Beats by Dre — Remote

- Ran sentiment analysis on customer reviews using Gemini API & NLTK, extracting actionable product insights
- Automated competitor benchmarking in Python, processing 4000+ reviews and product metrics to inform marketing decisions
- Scraped, cleaned, and visualized Amazon sales data with BeautifulSoup, pandas, and NumPy to support business decisions

PROJECTS

Link Analyzer — July 2025 – August 2025

Node.js, Express.js, React, PostgreSQL, Cheerio, Axios, Vercel

- Developed a full-stack web app in `Node.js`, `Express.js`, and `React` with RESTful APIs to extract real-time URL metadata
- Implemented web scraping using `Axios` and `Cheerio` to capture titles, descriptions, headings, and media from public web pages
- Created PostgreSQL-backed and serverless (LocalStorage) versions, enabling either persistent histories or privacy-first operation
- Designed a responsive frontend in `React` with reusable components for dynamic rendering of results and history

NBA Player Valuation Model — December 2024 – July 2025

Python, BeautifulSoup, Pandas, NumPy, scikit-learn, Matplotlib/Seaborn, Jupyter

- Built a machine learning pipeline in `Python` using `pandas`, `scikit-learn`, and `BeautifulSoup` to predict NBA player VORP, achieving $R^2 = 0.92$ with Gradient Boosting and 5-fold CV
- Engineered 20+ domain-specific features (e.g., per-36-min stats, PER $\times$ MP, TS $\times$ USG) to capture offensive and defensive impact
- Applied `RobustScaler` to handle outliers and avoided target leakage by excluding label-correlated metrics.
- Tuned hyperparameters via `GridSearchCV` & `RandomizedSearchCV` across multiple models, identifying PER $\times$ MP as the top predictor

SKILLS & ADDITIONAL

Programming Languages: Python, C++, JavaScript/TypeScript, Java
Technologies: scikit-learn, pandas, NLTK, BeautifulSoup, Node.js, Express.js, React, Tailwind CSS, PostgreSQL
Languages (Spoken): Portuguese (Fluent), Italian (Fluent), English (Fluent), Spanish (Professional Proficiency)