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, Object-Oriented Programming, Linear Algebra, Data Structures & Algorithms, Computer Architecture

Experience

Software Engineer Intern August 2025 – Present

PlayTogether *Remote*

- Refactoring 5k+ lines of TypeScript/React frontend and backend code, optimizing GraphQL queries and reducing API latency by 10% improving maintainability for a team of 7 engineers
- Integrated Keycloak authentication into React login flows, cutting login-related errors by 20% for a user base of 200k+ monthly active users
- Standardized mobile and Keycloak UI components, reducing cross-device inconsistencies and decreasing user-reported UI issues by 10% within two release cycles

Software Engineer Intern May 2025 – August 2025

Electronic Visualization Lab *Chicago, IL*

- Built a real-time 3D visualization tool in Unreal Engine in a team of 3, integrating C++ modules with Blueprints to achieve 60–120 FPS rendering (2–3× faster than prior prototypes) on commodity hardware
- Deployed the tool to support 20+ researchers and graduate students, enabling immersive visualization and interactive exploration of scientific 3D environments

Software Developer January 2025 – May 2025

University of Illinois Department of Physics *Urbana, IL*

- Built a custom JavaScript WaveForms extension with FFT + Tukey windowing for real-time magnetic resonance simulations on FPGA hardware, improving accuracy for 100+ graduate students

Projects

MRI Classification Model May 2025 – August 2025

PyTorch, Deep Learning, Computer Vision

- Built a deep learning pipeline in PyTorch for MRI classification and segmentation with uncertainty quantification and explainability, training on a 3,200+ MRI dataset
- Implemented 2D/3D CNN architectures with advanced loss functions, improving segmentation accuracy by 45% over prior iteration
- Achieved 89% classification accuracy and 90% segmentation accuracy, enabling more reliable medical imaging analysis

Link Analyzer July 2025 – August 2025

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

- Developed a full-stack web application using Node.js, Express.js, PostgreSQL, and React, serving 20+ active users
- Implemented web scraping with Axios and Cheerio to capture real-time HTML metadata from public URLs, supporting 100+ queries/day
- Designed a responsive React frontend with reusable components, improving query-to-render time by 30% and enhancing usability across devices

NBA Player Valuation Model December 2024 – July 2025

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

- Developed a machine learning pipeline in Python to predict NBA player VORP with 92% accuracy, engineering 20+ domain-specific features for 500+ athletes

Skills & Additional

Programming Languages: Python, C++, JavaScript/TypeScript, Java
Technologies: PyTorch, scikit-learn, pandas, NLTK, BeautifulSoup, Node.js, Express.js, React.js, Tailwind CSS, PostgreSQL
Interests: Soccer, Brazilian Jiu-Jitsu, Hiking, Watching Nature Documentaries, Sci-fi Movies