Michele Autorino

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Education

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

Bachelor of Science in Computer Science & Statistics *GPA: 3.68/4.0*

- **Relevant Coursework**: Abstract Linear Algebra, Systems Programming, Statistics and Probability, Discrete Mathematics, Object-Oriented Programming, Data Structures & Algorithms, Computer Architecture, Database Systems, Statistical Modeling

Experience

Software Engineer Intern August 2025 - December 2025

PlayTogether *Remote*

- Refactored frontend and backend TypeScript 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 and hardened edge cases, reducing login-related errors by 20% for 10k+ users and improving reliability of production auth
- Standardized mobile and Keycloak UI components, reducing cross-device inconsistencies and decreasing user-reported UI issues by 10% within two release cycles

Researcher September 2025 – December 2025

Illinois Geometry Lab *Urbana, IL*

- Built Python data pipelines and simulation models on tens of thousands of games across multiple leagues to study skill vs. luck using pandas, NumPy, and scikit-learn

Software Engineer Intern May 2025 – August 2025

Electronic Visualization Lab *Chicago, IL*

- Developed a real-time 3D visualization system in C++ / Unreal Engine; profiled rendering and memory to achieve 2–3× frame-rate improvement (60→120 FPS)
- 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 JavaScript WaveForms extension (FFT + Tukey window) for real-time signal processing on FPGA rigs for 100+ students; improved measurement accuracy by 15%

Projects

MRI Classification Model

PyTorch, Deep Learning, Computer Vision

- Built a PyTorch pipeline for MRI classification and segmentation on 3,200+ images, implementing 2D/3D CNNs and advanced loss functions; improved segmentation accuracy by 45% and achieved 89% classification accuracy and 90% segmentation accuracy

degenstock – HackPrinceton (30/180+ teams)

Python, FastAPI, PostgreSQL, AWS (EC2, Amplify), React/Next.js, FAISS, OpenAI API

- Built an AWS-hosted FastAPI service that ingests Polymarket and Kalshi markets, normalizes team stats and opening odds in PostgreSQL, and runs similarity search with KNN and OpenAI/FAISS embeddings to surface historically similar and mispriced contracts
- Developed an analytics layer that reconstructs user positions, detects arbitrage/hedge opportunities, runs payoff simulations, and serves REST APIs consumed by React/Next.js dashboards for price history and side-by-side market comparisons

Skills & Additional

Programming Languages: Python, C++, JavaScript/TypeScript, Java
Technologies: AWS, PostgreSQL, FastAPI, PyTorch, Node.js, Express.js, React.js, Next.js, Docker, Git, Linux
Interests: Soccer, Brazilian Jiu-Jitsu, Hiking, Meeting people, Romantic Comedies