

Vito Spatafora

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TECHNICAL SKILLS

Languages: Python, Java, C++, C#, JavaScript, SQL, PowerShell, HTML

AI/ML: Generative AI, Agentic Workflows, RAG, Vector Databases, Computer Vision, TensorFlow, Random Forests, Feature Engineering

Enterprise/Cloud: PeopleSoft, PeopleSoft Test Framework (PTF) Scripting, AWS, Cloud Automation, Knowledge Management, Workflow Analysis

Platforms/Tools: Git/GitHub, Linux, Windows, Jira, Excel, Technical Reporting

WORK & LEADERSHIP EXPERIENCE

Associate Application Consultant Intern

May 2026 – Present

IBM

Columbia, SC / Hybrid

- Lead development of an agentic AI automation solution that transforms PeopleSoft ERP change requests into natural-language test cases and executable PTF scripts informed by documentation and best practices.
- Use IBM AI tools and workflow analysis to support consulting research, identify internal process improvements, and build automation that improves productivity and application delivery consistency.
- Selected as IBM Columbia intern capstone lead, coordinating 8 interns for a nationwide consulting case competition; contributed to a NASA knowledge-management proposal using RAG, vector databases, and conversational AI.

Machine Learning Researcher

Apr. 2026 – Present

University of South Carolina

Columbia, SC / Hybrid

- Build Python ML workflows for industrial welding anomaly detection using thermal imagery, visual imagery, temporal sensor data, feature engineering, threshold-based detection, and Random Forest models.
- Led transition from offline batch processing toward real-time streaming inference on edge devices, aligning model design with live camera input and hardware-constrained deployment.
- Conduct feature selection, preprocessing analysis, dataset compatibility reviews, testing, and performance evaluation across heterogeneous data sources.

Endpoint/Field Service Engineer Intern

Dec. 2024 – Aug. 2025

Broadview Federal Credit Union

Albany, NY / On-site

- Built PowerShell automation for endpoint inventory workflows, reducing recurring manual data entry by approximately 30 hours per month.
- Imaged and configured Windows workstations, managed Jira support requests, maintained service records, and prepared technical reports for employee endpoint environments.

Member Solutions Specialist

May 2024 – Aug. 2024

Broadview Federal Credit Union

Albany, NY

- Recognized as a top 4 intern among a 40-person cohort for customer service and efficiency while supporting secure loan payments, fund transfers, and financial-services applications.

VP of Health & Safety

Nov. 2024 – Dec. 2025

Delta Kappa Epsilon

Columbia, SC

- Developed and enforced event safety and risk-management protocols for 100+ members while coordinating with university officials, alumni advisors, and national leadership.

PROJECTS & AI RESEARCH

Energy-Aware Chess Engine Training | *Python, TensorFlow, CNNs, Self-Play Evaluation*

- Built TensorFlow CNN evaluation functions to compare curriculum-guided self-play against traditional full-game self-play inside a consistent chess-engine training framework.
- Measured convergence speed, energy usage, and relative model performance to study whether curriculum design can improve ML training efficiency.

Chess Engine Development | *Search Algorithms, Optimization, Game AI*

- Designed and implemented chess software with a built-in engine capable of evaluating board positions and selecting strong moves.
- Implemented Negamax, alpha-beta pruning, transposition tables, Zobrist hashing, and magic bitboards; benchmarked play at approximately the 70th percentile of human players using Chess.com statistics.

EDUCATION & CERTIFICATIONS

University of South Carolina

Expected May 2027

Bachelor of Science in Computer Science

Columbia, SC

- Relevant Coursework: Machine Learning, Data Structures, Algorithm Design/Analysis, Software Engineering, Computer Networks, Vector Calculus, Discrete Mathematics, Physics
- Certifications: AWS Certified Cloud Practitioner (Issued Sep. 2025; Expires Sep. 2028), AWS Cloud Practitioner Essentials, Google Machine Learning Crash Course; Study Abroad: Florence, Italy (Spring 2026)