

Matthew Thomas Pisano
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Objective: A career in Cognitive Artificial Intelligence research and development.

Skills and Experience:

- **Machine Learning (2 Years):** Foundational models, prompt engineering (CoT, Few-Shot), RL, model fine-tuning.
- **Development (3 Years):** DevOps in a professional, team setting, CI/CD, and Agile development methodology.
- **Python Programming (5 Years):** Professional and research projects, PyTorch, transformers.
- **AWS (3 Years):** DevOps, CI/CD through AWS Cloudformation, along with EC2, Lambda, and S3.
- **Java Programming (5 Years):** Advanced data structures, application development, and design patterns.
- **Android Development (2 Years):** Development and publishing of several Android apps, academic certification.
- **Web Development (5 Years):** React.js, Node.js, responsive design, database management, and academic certification.
- **GitHub:** matthew-pisano for a more thorough showcase of various projects and programming proficiency in multiple languages. Details of proprietary projects may be made available upon request.
- **Portfolio Website:** matthewpisano.com for a more detailed look at notable projects and research.
- **Awards and Certifications:** Eagle Scout, Vigil Honor, and Red Cross CPR/AED.

Research and Publications:

- **PredictChain: Empowering Collaboration and Data Accessibility for AI in an Algorand Blockchain-based Marketplace.** Research article on the development of *PredictChain*, a decentralized machine learning marketplace. Accepted into *ChainScience* 2023 <https://arxiv.org/abs/2307.15168>
- **Large-Scale Foundation Acoustic Modeling for Automatic Speech Recognition**, Sponsor: *RPI AIRC Lab* under Prof. Mei Si. Investigation of improvements to current ASR and NLG techniques for usage in virtual agents.
- **On Picard Groups and Jacobians of Directed Graphs**, Sponsor: *SUNY New Paltz Summer Undergraduate Research Experience*. Study of Chip-Firing games and how different orientations of directed edges affect its winning strategies and the properties of the game. Accepted into *JMM* 2023, travel grant offered. <https://arxiv.org/abs/2302.10327>

Higher Education:

- **Rensselaer Polytechnic Institute**, 110 8th St, Troy, NY. (2023-Present) Master's degree in Computer Science, focus on Artificial Intelligence. 4.0 GPA, awarded TA position and scholarship.
- **SUNY New Paltz**, 1 Hawk Dr, New Paltz, NY. (2021-2022) Bachelor's degree in Computer Science, Minor in Applied Mathematics, and undergraduate research. 4.0 GPA, consecutive Dean's list, and Outstanding Graduate honor.
- **SUNY Ulster Community College**, 491 Cottekill Rd, Stone Ridge, NY. (2019-2021) Associate's degree in Computer Science. Web and Mobile Application Certifications, Phi Theta Kappa Honors Society. 4.0 GPA and consecutive President's list.

Work Experience:

- **IBM Research (through RPI)**, 1101 Kitchawan Rd, Yorktown Heights, NY: Research extern. (2023) Projects and Experience: Research into foundational model alignment through fine-tuning on text-based games.
- **Cyber Guardian Consulting Group**, 63 John St, Kingston, NY: Software Developer. (2020-Present) Projects and Experience: Extensive use of AWS, custom SaaS solutions, full stack web development, backup and restoration software, development in Python, PowerShell, and Javascript frameworks.
- **Rensselaer Polytechnic Institute**, 110 8th St, Troy, NY: Computer Science Teaching Assistant. (2023) Duties: Provide students with assistance, grade assignments for the *Principles of Software* class.