

Matthew Thomas Pisano
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(845)-706-0677

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

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Skills and Experience:

- **Machine Learning (1 Year):** Experience with RNNs, reinforcement learning, Pytorch, JAX.
- **Development (2 Years):** DevOps in a professional, team setting, CI/CD, and Agile development methodology.
- **Python Programming (4 Years):** Professional experience, back-end development, and ML libraries.
- **AWS (2 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 (4 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:** reactordevelopment.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:

- **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 Conference, travel grant offered. Planned submission to the Journal of Experimental Mathematics in Spring 2023. <https://arxiv.org/abs/2302.10327>
- **Predictive Diabetes Diagnosis using Backpropagation, Genetic Training, and Decision Tree Optimization**. Research report to analyze the effectiveness of three neural network training methods to diagnose hypothetical patients with type II diabetes.

Higher Education:

- **Rensselaer Polytechnic Institute**, 110 8th St, Troy, NY. (2023-Present) Master's degree in Computer Science, focus on Artificial Intelligence. Awarded TA position.
- **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:

- **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.
- **SURE Research Program (SUNY New Paltz)**, 1 Hawk Dr, New Paltz, NY: Research Assistant. (2022) Research: On Picard Groups of Directed Graphs. Mathematics research mentored by Jaiung Jun.