Matthew Thomas Pisano

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LinkedIn: matthew-pisano

Career Objective: To create novel research into NLP and artificial intelligence alignment strategies.

GitHub: matthew-pisano Many of my open-source projects and contributions.

Portfolio Website: matthewpisano.com for a more detailed look at my notable projects and research.

Skills and Experience:

- Machine Learning (2 Years): Transformer models, prompt engineering, RL, NLP, ASR.
- Software Development (3 Years): DevOps in a professional, team setting, CI/CD.
- **Python Programming (5 Years):** Professional and research projects, PyTorch, transformers.
- AWS (4 Years): Cloudformation, EC2, Lambda, S3.
- **Java Programming (5 Years):** Application and Android development.
- Web Development (5 Years): React.js, Node.js, responsive design, DB management.
- Additional Experience: C++, SQL, Ethereum and Algorand Networks.
- Awards and Certifications: Eagle Scout, Vigil Honor, and Red Cross CPR/AED.

Research and Publications:

- Moral High Ground: A Text-Based Games Benchmark for Moral Evaluation. A novel benchmark for evaluating the moral reasoning abilities of LLMs through conversational text-based games. Submitted to *ICLR* 2024.
- 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. Presented at *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.

Higher Education:

- **Rensselaer Polytechnic Institute**, 110 8th St, Troy, NY. (2023-Present) Master's degree in Computer Science, focus on artificial intelligence alignment and NLP. 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, and Outstanding Graduate honor.

Work Experience:

- **IBM Research (through RPI)**, 1101 Kitchawan Rd, Yorktown Heights, NY: Research extern. (2023) Research into large language model alignment using moral principles through fine-tuning on text-based games. Research submitted to *ICLR* 2024.
- Cyber Guardian Consulting Group, 63 John St, Kingston, NY: Software Developer. (2020-Present) 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-Present) Provide students with assistance, grade assignments for the *Principles of Software* and *Data Structures* classes.