Matthew Thomas Pisano

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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.