

# Michael Pignatelli

mpig@seas.upenn.edu // (516) 668-3956 // Hewlett, Long Island, NY  
<http://www.linkedin.com/in/mpignatelli/> // <https://github.com/mpignatelli12>

## EDUCATION

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**University of Pennsylvania, *School of Engineering and Applied Science***, Philadelphia, PA *May 2027*  
Candidate for Bachelor of Science in Engineering  
*Major:* Computer Science  
*Concentration:* Computer Vision/AI  
*GPA:* 3.66/4.00  
*Relevant Coursework:* Tiny ML for Embedded Systems, Algorithms/Data Structures, Probability (Wharton), Automata/Computability/Complexity, Computer Systems, Engineering Electromagnetics  
*Associations:* Penn Data Science Group (Wharton), ML Research at Penn, Computer Science Society, Penn Aerospace Club

## EXPERIENCE

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**Penn Dept. of Computer and Information Science** | *CIS 1100 Teaching Assistant*, Philadelphia, PA *Aug. 2024 – Present*

- Lead recitation class; host and support students at office hours for intro CS course (Python/Java); ~300 students
- Collaborate on development of course infrastructure (committee); grade assignments and exams
- Contribute to staff meetings; swiftly and accurately answer student questions on course discussion board (committee)

**Hewlett-Woodmere Public Schools** | *Auditorium Technician* (Contract), Hewlett, NY *June 2022 – Present*

- Precisely control lights, sound, and video streaming in support live concerts and school events
- Cohesively film and live-stream events via IBM Ustream integration, consistently reaching over 200 viewers

**Outlier AI** | *AI Prompt Engineer* (Contract), Remote *May 2024 – Aug. 2024*

- Trained AI models to become more accurate, relevant, and safe in math and programming (Python/Java)
- Formed, revised, and evaluated LLM prompts and responses for model training purposes
- Reviewed coworker prompts and revisions for completeness, ensuring training and validation data are processable

## EXTRACURRICULARS

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**Penn High Powered Rocketry** | *Active Recovery/Avionics Engineer*, Philadelphia, PA *Sept. 2023 – Present*

- Implement dual parachute deployment system (primary/drogue) for annual L3 team rocket
- Model and simulate rocket/metrics to be within 5% of real-world result using OnShape and OpenRocket
- Contribute to successful and safe recovery of team rocket using geolocation technology
- Design and integrate dual camera system, live telemetry telecom system for annual launch at Spaceport America
- Successfully launched to over 12000ft at Spaceport America Cup, New Mexico, June 2024

**Penn Habitat for Humanity** | *Volunteer Division*, Philadelphia, PA *Sept. 2023 – Present*

- Raised several thousand dollars for Philadelphia Habitat for Humanity through the annual Rake-A-Thon event

**Hewlett Robotics** | *Vice President (22-23); Team 5477 Innovo Co-Captain (21-23)*, Hewlett, NY *Sept. 2017 – June 2023*

- Led team to Regional Championship Event in 2023, Finalist Team, Control Award, 3rd Place Design Award (2023)
- Supervised regular meetings (task management/safety guidelines) and compiled meeting/inventory records
- Contributed to various technical systems (electrical, software, mechanism, intake/outtake, drivetrain); trained new recruits on efficient and effective design/assembly of systems

## PUBLICATIONS

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E. Cohen-Kashi, A. Khaytman, E. Kim, **M. Pignatelli**, B. Gulotta, and J. Van Wie, (2023) “Competing in the Global Semiconductor Industry: Let the Chips Fall Where They May”, *Journal of Future Economists*, 2, 66-75.

## SKILLS

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**Technical:** Object Oriented Programming, Functional Programming, ML Model Development, TensorFlow, TensorFlow Lite, Jupyter Notebook, Git, Research, LaTeX, Mathematica, Office 365/Excel, Google Suite, IBM SPSS, Fusion 360, SketchUp, OpenRocket, SOLIDWORKS, OnShape, DraftSight, Creative Thinking, Technical Drawing, Computer Building/Repair  
**Languages:** *Proficient:* Java, Python, OCaml *Familiar with:* C, Swift *Non-programming:* Italian (advanced)  
**Interests:** Machine Learning/AI, Data Science, Linguistics, Electric/Sustainable Transportation, Aerospace, Financial Tech