

# Michael Pignatelli

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## EDUCATION

**University of Pennsylvania, School of Engineering and Applied Science**, Philadelphia, PA May 2026

Candidate for Bachelor of Science in Engineering

*Major:* Computer Science (*Concentration in Computer Vision/AI*)

*Minor:* Italian Culture

*GPA:* 3.5/4.0

*Relevant Coursework:* Algorithms/Data Structures, Probability (Wharton), Computer Systems, Big Data Analytics, AI, Tiny ML for Embedded Systems, Computability/Complexity

*Associations:* Penn Data Science Group (Wharton), ML Research at Penn, Computer Science Society, Penn Aerospace Club

**Option to graduate in May 2027 with both B.S.E. and Master of Science in Engineering degrees**

## EXPERIENCE

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

- Hold recitation class; host and support students at office hours for intro CS course (Python/Java); ~300 students
- *Ed Discussion Committee Head:* ensure that student questions are swiftly and accurately answered on class discussion board
- Teach wide variety of Python topics: Pandas, XML, Data Structures, Recursion, OOP, Functional Programming
- Collaborate on development of course infrastructure, website ([cis1100.com](https://cis1100.com)) using HTML, GitHub, Ruby (committee)
- Contribute to weekly staff meetings; design fair and comprehensive exam questions; coordinate rubric development

**Hewlett-Woodmere Public Schools** | *Auditorium Technician* (Contract), Woodmere, 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

**Scale AI** | *Outlier AI Prompt Engineer* (Contract), San Francisco, CA 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

**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

**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 recruits

## PUBLICATIONS

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

**Technical:** OOP, Functional Programming, ML Model Development, TensorFlow/Lite, Keras, PyTorch, Pandas, NumPy, Docker, Jupyter NB, GitHub, AWS, XML, Mathematica, Office/Excel, GSuite, SPSS, Creative Thinking, Industrial Sketching

**Programming:** Java, Python, C, OCaml, LaTeX *Familiar:* SQL, C++, Swift, HTML, MATLAB **Languages:** English, Italian

**Interests:** Machine Learning/AI, Data Science/Analytics, Linguistics, Electric/Sustainable Transportation, Aerospace, FinTech