Ari Peró

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Education

Massachusetts Institute of Technology (MIT) Expected May 2026
B.S. in Urban Science & Planning with Computer Science and Music *Cambridge, MA*

- **GPA**: 5.0/5.0 in-major(s), 4.9/5.0 overall
- **Relevant Coursework**: Advances in Computer Vision, Machine Learning, Web Design, Algorithms, Discrete Math & Proofs, Linear Algebra & Optimization, Programming Fundamentals, Programming in Python, Computational Thinking & Data Science, Digital and Computational Photography, Calculus (I-III)
- *Dr Robbin Chapman Excellence through Adversity Award*: Persistence in advancing diversity/inclusion on campus
- *MIT Office of Minority Education 2022-2023 Distinguished Peer in Public Service*
- *Point Foundation Flagship Scholar and Spokesperson*: LGBTQ+ empowerment through education and leadership

Technical Skills

Computer Languages: Python, Rust, C++, Java, Bash, HTML/CSS/JavaScript, TypeScript, LaTeX, Julia
Applications: Docker, AWS, Jupyter, Adobe Photoshop, Premiere Pro, Lightroom, Illustrator, Blender, Logic Pro, OBS
Foreign Languages: Spanish (Fluent), Portuguese (Basic)

Experience

Amazon Project Kuiper (Kuiper Manufacturing Enterprises) Jun 2024 – Aug 2024
Embedded Software Development Engineer Intern *Seattle/Redmond, WA*

- Boosted developer productivity by 15-20% and reduced codebase size by ~25% by designing a satellite gateway CLI using `Click`. Eliminated boilerplate, established compatibility with core team libraries, and contained the tool via Docker. Optimized interprocess communication by integrating Cap'n Proto formats and messaging bus structures.
- Developed and implemented a Rust- and C++-based feature to securely query and verify satellite bootloader public keys, addressing a critical security gap. Authored detailed technical documentation on security enhancements.

MIT Computer Science and Artificial Intelligence Laboratory (CSAIL) Jul 2023 – Present
Computer Vision and Visual AI Researcher *Cambridge, MA*

- Assess the impact of biodiversity data sharing on machine learning model performance, using PyTorch, TensorFlow, and Pandas to optimize predictive accuracy and extract ecological insights. Employ CUDA to accelerate processing of diverse, long-tailed species distributions. Execute and automate HPC tasks via Slurm and Bash scripts in a Unix/Linux environment. Manage version control with Git. Deploy models on Azure/GCP for scalable cloud operation.

MIT Introduction to Technology, Engineering, & Science (MITES) Jun 2023 – Aug 2023
MITES Summer Residential Teaching Assistant for "Humanities & Ethics in STEM" *Cambridge, MA*

- Planned and led recitations, office hours, and writing labs. Coordinated academic programming and social events.

MIT Office of Sustainability Research Fellowships Sep 2022 – Nov 2022
Climate Communications Sustainability Researcher, Video Producer *Cambridge, MA*

- Developed films communicating MIT's Climate Action Plan. Make complex ideas accessible to a diverse audience.

Projects

Unsubscribe | unsubscribe.mit.edu | *React, Express, Node.js, MongoDB/Mongoose, Figma* Jan 2024

- Pioneered app with real-time updates and notifications on free food resources, currently hosting 500+ posts, using WebSocket and Socket.IO. Integrated secure authentication via OAuth/OpenID clients, Google Login API, and MIT Shibboleth. Designed a responsive multiplatform UI using Tailwind, MUI, ReactTimeAgo, and FullCalendar.
- **Won the Webby/People's Choice Award in the 2024 MIT WebLab web development competition.**

Community & Leadership

MIT Climate and Sustainability Consortium (MCSC) Aug 2024 – Present
Teaching Assistant, MCSC Scholar (Advanced year-long interdisciplinary research program) *Cambridge, MA*

- Provide instruction on effective research techniques, e.g., problem selection, literature review, and robust design.

Active Community Engagement: MIT Pre-Orientation Program Dec 2022 – Present
Program Coordinator (Priscilla King Gray Center for Public Service) *Cambridge, MA*

- Design social justice workshops, lead counselor training, and propel synergic service ventures with local non-profits.

Society of Hispanic Professional Engineers *Region 7* (2020 – 2022), *SHPE-MIT* since Sep 2022
American Indian Science & Engineering Society *Membership Co-Lead* Feb 2023 – Present