Adrian Meza

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Education

Massachusetts Institute of Technology (MIT) **Cambridge, MA**
Candidate for Bachelor of Science in Physics *Aug 2016 – Dec 2021*
Candidate for Bachelor of Engineering in Electrical Engineering & Computer Science
Relevant Coursework: Advances in Computer Vision, Deep Learning Practicum, Fundamentals of Programing, Introduction to Computational Thinking and Data Science, Discrete Applied Mathematics, Computation Structures, Introduction to Algorithms
GPA: 4.4/5.0

Experience

MIT Center for Brains Minds + Machines **Cambridge, MA**
Undergraduate Researcher *Aug 2018 – Present*
- Utilizing learning-based approaches to improve motion segmentation and object discovery algorithms
- Using temporal association of objects in video and unsupervised learning to learn visual representations

MIT Computer Science and Artificial Intelligence Lab - Cybersecurity Group **Cambridge, MA**
Undergraduate Researcher *May 2018 – Aug 2018*
- Learned the most common memory unsafe exploits for low level computer programs through open-source cybersecurity exercises.
- Worked on an AI attack planning graph to analyze computer programs for vulnerabilities and map out possible attack routes.

MIT Center for Theoretical Physics **Cambridge, MA**
Dark Matter - Undergraduate Researcher *Feb 2018 – May 2018*
- Utilized a custom python library to create mock data to simulate potential sources of dark matter around or in the galactic center excess.
- Worked to use machine learning to scan Kepler telescope data for potential sources of dark matter, using the simulated data as a training set

NASA Jet Propulsion Laboratory **Pasadena, CA**
Applied Electromagnetics Lab *May 2017- Aug 2017*
- Implemented a custom simulation using Matlab to optimize the amount of power we could collect at an Avalanche Photodiode Sensor (APD) from light coming in at various angles and to achieve a greater Signal to Noise Ratio.

Space Sciences Division *May 2017- Aug 2017*
- Analyzed possible novel methods for detecting Exoplanets in Extrasolar systems through modulations in Radio Frequency Emissions.
- Used Fourier Analysis to test numerous scenarios that we could see upon observation of an Extrasolar system.

MIT Motorsports/Formula SAE Team **Cambridge, MA**
Electric Engineering Division *Aug 2016 – Dec 2016*
- Designed and implemented printed circuit boards, using Altium, to implement safety systems for an electric motorsports vehicle.

Leadership

MIT Physics Department **Cambridge, MA**
Committee Member *Jan 2018 - Present*
- Collaborated with MIT Physics Department and a few other Undergraduates to organize a Physics Values Statement. It outlines our commitment to ensuring well-being, respect, inclusion, collaboration, and mentorship are imperatives in our interactions as students & faculty.

City of Children Orphanage Backpack/School Supplies Drive **Ensenada, Mexico**
Founder *Aug 2013 - Present*
- Developed and manage a fundraising drive aimed at purchasing school supplies (backpacks, shoes, school utilities, etc.) for approximately 86 kids (ages K-12); delivered every year before the school year starts.

Skills

- Languages: Python, C/C++, Matlab, JavaScript, HTML/CSS, Assembly, RUST
- Libraries: PyTorch, TensorFlow/TensorFlow.js
- Fluent in Spanish and English (read, write, speak); knowledgeable in Japanese (read, short conversation)