Pedro Sandoval Segura

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Research Interests

EXPERIENCE

I am broadly interested in computer vision and deep learning. Lately, my research focuses on adversarial examples and the benefits of adversarial training.

EDUCATION University of Maryland, College Park, MD

> Ph.D., Computer Science Expected 2025

Amazon Lab126 Diversity in Robotics and AI Fellow

M.S., Computer Science May 2021

Harvey Mudd College, Claremont, CA

B.S., Computer Science and Mathematics May 2019

Graduated with High Distinction

Amazon Lab126, Sunnyvale, CA Research Applied Scientist Intern

• Working with Dr. Chi Liu and Dr. Albert Chen

Computer Vision Laboratory, University of Maryland

• Studying adversarial robustness in the context of image classification and segmentation

• Working with Prof. David Jacobs and Prof. Tom Goldstein

Summer 2021 U.S. Naval Research Laboratory, Washington, D.C.

• Investigating adversarial examples, robustness, and interpretability in meta-learning approaches for few-shot learning

• Submitted findings to 5th Workshop on Meta-Learning at NeurIPS 2021

• Working with Dr. Ed Lawson

Industry EXPERIENCE Facebook, Inc., Seattle, WA

Summer 2018 Software Engineering Intern

- Implemented and monitored new share flow functionality for encrypted Messenger threads, allowing users to forward text, sticker, photo, audio, and video securely
- Received a full-time offer at the conclusion of internship

Facebook, Inc., Menlo Park, CA

Summer 2017

May 2022 - Present

Aug 2020 - Present

Software Engineering Intern

- Designed and built a new Messenger Groups Tab approvals surface, enabling users to accept join requests across multiple group threads
- Oversaw, implemented, and ran an A/B test interleaving active groups in the Active Tab which drove topline metrics such as group sends and group creates

Facebook, Inc., Menlo Park, CA

Summer 2016

Facebook University for Engineering Intern

• Organized engineering tasks, drafted feature ideas, and collaborated with a team of 3 to build InSync, an iOS app which synchronizes music on multiple devices

TEACHING EXPERIENCE	CMSC421: Introduction to Artificial Intelligence Graduate Teaching Assistant, University of Maryland	Spring 2021
	CMSC421: Introduction to Artificial Intelligence Graduate Teaching Assistant, University of Maryland	Fall 2020
	CMSC436: Programming Handheld Systems Graduate Teaching Assistant, University of Maryland	Fall 2019
	CS81: Computability and Logic Teaching Assistant, Harvey Mudd College	Spring 2019
	MATH187: Operations Research Grader, Harvey Mudd College	Spring 2019
Honors and Awards	Amazon Lab126 Diversity in Robotics and AI Fellow Google CS Research Mentorship Program (CSRMP) Richard Tapia Conference Scholarship CRA-WP Grad Cohort for URMD UMD International Conference Student Support Award UMD Dean's Fellowship Program ARCS Scholarship, Los Angeles Chapter Students Rising Above Scholarship	2021 - 2022 2021 2020 2020 2020 2019 - 2020 2016 - 2019 2015 - 2019
Publications	5. Sandoval-Segura, Singla, Fowl, Geiping, Goldblum, Jacobs, Goldstein. "Poisons that are learned faster are more effective". In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2022.	
	4. Bashir, Montañez, Sehra, Sandoval-Segura , Lauw. "An Information-Theoretic Perspective on Overfitting and Underfitting". In <i>Australasian Joint Conference on Artificial Intelligence (AJCAI)</i> , 2020.	
	3. Sandoval-Segura, Lauw, Bashir, Shah, Sehra, Macias, Montañez. "The Labeling Distribution Matrix (LDM): A Tool for Estimating Machine Learning Algorithm Capacity". 12th International Conference on Agents and Artificial Intelligence (ICAART), 2020. arXiv:1912.10597	
	 Drissi, Sandoval, Ojha, Medero. "Harvey Mudd College at SemEval-2019 Task The Clint-Buchanan Hyperpartisan News Detector". In Proceedings of The 13th International Workshop on Semantic Evaluation (SemEval), 2019. arXiv:1905.01962 	
	1. Drissi, Watkins, Khant, Ojha, Sandoval , Segev, Weiner, Keller. "Programming Language Translation using a Grammar-Driven Tree-to-Tree Model". <i>ICML Workshop on Neural Abstract Machines and Program Induction v2 (NAMPI)</i> , 2018. arXiv:1807.017	
Leadership and Outreach	Reviewer for 1st International Conference on Automated ML Reviewer for 5th Workshop on Meta-Learning at NeurIPS CS Department M.S. and Ph.D. Admissions Committee UMD Graduate Student Government Representative JumpStart Computing Workshop, Iribe Initiative for Inclusion & Diversity in Computing	Spring 2022 Fall 2021 Spring 2020 Fall 2019 Fall 2019
Technical Background	Languages: Python, Java, C, C++, Objective-C, Swift, Go, Haskel	ll, AMPL, Arduino

Software: PyTorch, TensorFlow, Git, GitHub, Docker, Mercurial, Jira, Mathematica,

MATLAB, Xcode

PERSONAL Citizenship: United States INFORMATION Language: English, Spanish