Pedro Sandoval Segura

CONTACT Information 2108 Brendan Iribe Center 8125 Paint Branch Drive College Park, MD 20742

(301) 405 2662 psando@cs.umd.edu

http://cs.umd.edu/~psando

RESEARCH INTERESTS I am broadly interested in problems within computer vision and deep learning. Lately, my research focuses on how to craft adversarial examples with high rates of cross-task transferability.

EDUCATION

University of Maryland, College Park, MD

M.S., Computer Science Ph.D., Computer Science Expected May 2021 Expected May 2024

Harvey Mudd College, Claremont, CA

B.S., Computer Science and Mathematics

May 2019

Graduated with High Distinction

RESEARCH EXPERIENCE Computer Vision Lab, University of Maryland

Aug 2020 - Present

Working with Prof. David Jacobs

• Studying a variety of adversarial attacks for computer vision tasks

Institute for Systems Research, University of Maryland

Aug 2019 - Aug 2020

Graduate Research Assistant I

Working with Prof. Dana Nau and Prof. William Regli

- Investigated algorithms for heterogeneous team formation and temporal planning
- $\bullet\,$ Authored a publication for future submission

AMISTAD Lab, Harvey Mudd College

 ${\rm Jan}\ 2019$ - ${\rm May}\ 2019$

Working with Prof. George Montañez

- Studied notions of algorithm capacity and dataset complexity
- Published findings in ICAART 2020

Neural Networks Group, Harvey Mudd College

Aug 2017 - May 2018

Working with Prof. Robert Keller

- Explored programming language translation using a tree-to-tree model
- Published findings in an ICML workshop

Industry Experience Facebook, Inc.

Summer 2018

Software Engineering Intern, Project LightSpeed

- 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.

Summer 2017

Software Engineering Intern, Messenger Groups

- Designed and built MVVM architecture for a new 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. 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

Spring 2021
Fall 2020
Fall 2019
Spring 2019
Spring 2019
2020 2020 2020 2019 - 2020 2016 - 2019

PUBLICATIONS

Honors and Awards

- 4. Bashir, Montañez, Sehra, **Sandoval Segura**, Lauw. "An Information-Theoretic Perspective on Overfitting and Underfitting". In *Australasian Joint Conference on Artificial Intelligence (AJCAI)*, 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
- 2. Drissi, **Sandoval**, Ojha, Medero. "Harvey Mudd College at SemEval-2019 Task 4: 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". *ICML Workshop on Neural Abstract Machines and Program Induction v2 (NAMPI)*, 2018. arXiv:1807.01784

LEADERSHIP AND OUTREACH

CS Department M.S. and Ph.D. Admissions Committee Spring 2020 UMD Graduate Student Government Representative Fall 2019 JumpStart Computing Workshop, Iribe Initiative for Inclusion & Fall 2019 Diversity in Computing

PERSONAL INFORMATION

Citizenship: United States Language: English, Spanish

Students Rising Above Scholarship

2015 - 2019