

Alex Oesterling

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EDUCATION	Harvard University <i>Ph.D. in Computer Science</i> <i>Advised by Prof. Flavio du Pin Calmon, Prof. Hima Lakkaraju</i>	2022 – Present
	Duke University <i>B.S.E. in Electrical and Computer Engineering, Computer Science</i> <i>Summa Cum Laude</i> <i>Advised by Prof. Guillermo Sapiro, Prof. Cynthia Rudin</i>	2018 – 2022 GPA: 3.98
FELLOWSHIPS & AWARDS	National Science Foundation Graduate Research Fellowship, 2022 <i>Funding for three years of graduate studies, covering cost of tuition and stipend</i>	
	Duke George Sherrerd III Memorial Award, 2022 <i>Awarded annually by ECE faculty to the senior with the highest scholastic achievement and service to the community.</i>	
	Tau Beta Pi, 2021 <i>National engineering honor society member with high academic standing and exemplary character.</i>	
	IEEE Eta Kappa Nu, 2021 <i>IEEE honor society for electrical engineers with high academic standing and leadership potential.</i>	
	Pratt Fellowship, 2020 <i>Competitive research fellowship culminating in graduation with distinction.</i>	
	Huang Fellowship, 2019 <i>Competitive fellowship focused on science and its intersection with society.</i>	
WORK EXPERIENCE	Amazon Alexa <i>Software Development Engineering Intern</i> Improved ambient Alexa experience by introducing new use case for customers owning multiple Alexa devices including one device with a screen	06/2021 - 08/2021
PUBLICATIONS	“Interpreting CLIP with Sparse Linear Concept Embeddings (SpLiCE).” U. Bhalla*, A. Oesterling* , S. Srinivas, F. P. Calmon, H. Lakkaraju. <i>NeurIPS 2024</i>	
	“Multi-Group Proportional Representation in Retrieval.” A. Oesterling* , C.M. Verdun*, C.X. Long, A. Glynn, L.M. Paes, S. Vithana, M. Cardone, F.P. Calmon. <i>NeurIPS 2024</i>	
	“Measuring Representational Harms in Image Generation with a Multi-Group Proportional Metric.” S. Jung, A. Oesterling , C.M. Verdun, S. Vithana, F.P. Calmon. <i>AFME Workshop, NeurIPS, 2024</i>	
	“Operationalizing the Blueprint for an AI Bill of Rights: Recommendations for Practitioners, Researchers, and Policy Makers.” A. Oesterling* , U. Bhalla, S. Venkatasubramanian, H. Lakkaraju <i>Preprint</i>	

“Fair Machine Unlearning: Mitigating Disparities during Data Deletion.”

A. Oesterling, J. Ma, F. P. Calmon, H. Lakkaraju.

AISTATS 2024

Prev. at Data Centric Machine Learning Workshop, ICML, 2023

”All Roads Lead to Rome? Exploring Representational Similarities Between Latent Spaces of Generative Image Models”.

C. Badrinath, U. Bhalla, **A. Oesterling**, S. Srinivas, H. Lakkaraju.

HiLD, GRaM, SPIGM Workshops, ICML, 2024

“Multitask Learning for Citation Purpose Classification.”

A. Oesterling*, A. Ghosal*, H. Yu*, R. Xin*, Y. Baig*, L. Semenova, C. Rudin.

Second Workshop on Scholarly Document Processing (SDP), NAACL, 2021

“Distributionally Robust Group Backwards Compatibility.”

M. Bertran, N. Martinez, **A. Oesterling**, and G. Sapiro.

DistShift Workshop, NeurIPS, 2021

“Detecting Motion in a Room Using a Dynamic Metasurface Antenna.”

A. Oesterling, M. Imani, O. Mizrahi, J. Gollub, and D. Smith.

IEEE Access, 2020

“Integrated Single-cell Multiomic Analysis of HIV Latency Reversal Reveals Novel Regulators of Viral Reactivation.”

A. Manickam, J. Peterson, Y. Harigaya, D. Murdoch, D. Margolis, **A. Oesterling**, Z. Guo, C. Rudin, Y. Jiang, E. Browne.

Genomics, Proteomics & Bioinformatics, 2024

“PP 1.33 – 00167 Integrated single-cell multiomic profiling of HIV latency reversal.”

A. Manickam, J. Peterson, W. Mei, D. Murdoch, D. Margolis, **A. Oesterling**, Z. Guo, C. Rudin, Y. Jiang, E. Browne.

Journal of Virus Eradication, 2022

** denotes equal contribution*

INVITED TALKS

Algorithmic Alignment Lab, MIT

12/2024

TEACHING

Teaching Fellow, *ES 156: Signals and Communications*

Harvard, Spring 2024

Head Teaching Assistant, *First Year Design (EGR 101)*

Duke, Fall 2020-2021

Teaching Assistant, *First Year Design (EGR 101)*

Duke, Fall 2019

SERVICE

Conference Reviewer

NeurIPS, ICML, ICLR, FAccT

Journal Reviewer

IEEE Journal on Selected Areas in Information Theory

Workshop Program Chair

RegML @ NeurIPS 2024

LEADERSHIP

Brownstone Residential Living Group

01/2019 – 05/2022

President, Historian

Duke Pureun KPop Dance Team
Social Chair and Small Group Leader

09/2019 – 05/2022