

# Alex Oesterling

aoesterling@g.harvard.edu, alexoesterling.com

EDUCATION	<b>Harvard University</b> <i>Ph.D. in Computer Science</i> <i>Advised by Prof. Flavio du Pin Calmon, Prof. Hima Lakkaraju</i>	2022 – Present
	<b>Duke University</b> <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	<b>National Science Foundation Graduate Research Fellowship, 2022</b> <i>Funding for three years of graduate studies, covering cost of tuition and stipend</i>	
	<b>Duke George Sherrerd III Memorial Award, 2022</b> <i>Awarded annually by ECE faculty to the senior with the highest scholastic achievement and service to the community.</i>	
	<b>Tau Beta Pi, 2021</b> <i>National engineering honor society member with high academic standing and exemplary character.</i>	
	<b>IEEE Eta Kappa Nu, 2021</b> <i>IEEE honor society for electrical engineers with high academic standing and leadership potential.</i>	
	<b>Pratt Fellowship, 2020</b> <i>Competitive research fellowship culminating in graduation with distinction.</i>	
	<b>Huang Fellowship, 2019</b> <i>Competitive fellowship focused on science and its intersection with society.</i>	
WORK EXPERIENCE	<b>Amazon Alexa</b> <i>Software Development Engineering Intern</i> Improved ambient Alexa experience by introducing new use case for customers owning a single device with a screen	06/2021 - 08/2021
PUBLICATIONS	“Interpreting CLIP with Sparse Linear Concept Embeddings (SpLiCE).” U. Bhalla*, <b>A. Oesterling*</b> , S. Srinivas, F. P. Calmon, H. Lakkaraju. <i>NeurIPS 2024</i>	
	“Multi-Group Proportional Representation.” <b>A. Oesterling*</b> , 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, <b>A. Oesterling</b> , 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.” <b>A. Oesterling*</b> , 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*

## 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**

09/2019 – 05/2022

*Social Chair and Small Group Leader*