# Alex Oesterling

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#### **EDUCATION** Harvard University

2022 - Present

Ph.D. in Computer Science

Advised by Prof. Flavio du Pin Calmon, Prof. Hima Lakkaraju

#### **Duke University**

2018 - 2022GPA: 3.98

B.S.E. in Electrical and Computer Engineering, Computer Science

Advised by Prof. Guillermo Sapiro, Prof. Cynthia Rudin

# **FELLOWSHIPS** & AWARDS

# National Science Foundation Graduate Research Fellowship, 2022

Funding for three years of graduate studies, covering cost of tuition and stipend

# Duke George Sherrerd III Memorial Award, 2022

Awarded annually by ECE faculty to the senior with the highest scholastic achievement and service to the community.

#### Tau Beta Pi, 2021

National engineering honor society member with high academic standing and exemplary character.

## IEEE Eta Kappa Nu, 2021

IEEE honor society for electrical engineers with high academic standing and leadership potential.

# Pratt Fellowship, 2020

Competitive research fellowship culminating in graduation with distinction.

## Huang Fellowship, 2019

Competitive fellowship focused on science and its intersection with society.

# WORK **EXPERIENCE**

#### Amazon Alexa

06/2021 - 08/2021

Software Development Engineering Intern

Improved ambient Alexa experience by introducing new use case for customers owning a single device with a screen

**PUBLICATIONS** "Interpreting CLIP with Sparse Linear Concept Embeddings (SpLiCE)."

U. Bhalla\*, A. Oesterling\*, S. Srinivas, F. P. Calmon, H. Lakkaraju.

NeurIPS 2024

"Multi-Group Proportional Representation."

A. Oesterling\*, C.M. Verdun\*, C.X. Long, A. Glynn, L.M. Paes, S. Vithana, M. Cardone, F.P. Calmon.

NeurIPS 2024

"Operationalizing the Blueprint for an AI Bill of Rights: Recommendations for Practitioners, Researchers, and Policy Makers."

A. Oesterling\*, U. Bhalla, S. Venkatasubramanian, H. Lakkaraju Under Review

"Fair Machine Unlearning: Mitigating Disparities during Data Deletion."

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

AISTATS 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. NeurIPS Workshop DistShift, 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

### **TEACHING**

Teaching Fellow, ES 156: Signals and CommunicationsHarvard, Spring 2024Head Teaching Assistant, First Year Design (EGR 101)Duke, Fall 2020-2021Teaching 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

<sup>\*</sup> denotes equal contribution