# LOGAN FRANK

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Address: 486 Dreese Laboratories, Columbus, Ohio

Ph.D. in Computer Science and Engineering EDUCATION

August 2019 - Present Ohio State University Expected Spring 2026

Advisor: Prof. Jim Davis

M.S. in Computer Science and Engineering August 2019 - Present

Ohio State University Expected Spring 2025

Advisor: Prof. Jim Davis

B.S. in Computer Engineering August 2015 - May 2019

Wright State University Overall GPA: 3.88/4.00

EXPERIENCE Ohio State University August 2019 - Present

Graduate Research Associate

Advisor: Prof. Jim Davis Computer Vision Laboratory

GE Aerospace Incoming May 2025

Computer Vision Research Intern Niskayuna, NY

Columbus, OH

Niskayuna, NY

Dayton, OH

Dayton, OH

Dayton, OH

Mentor: Dr. Paul Ardis

Project: TBD

May 2024 - August 2024 **GE** Aerospace

Computer Vision Research Intern

Mentor: Dr. Paul Ardis

Project: Multi-Modal Object Re-Identification

Air Force Research Laboratory May 2023 - August 2023

Graduate Research Intern

Mentor: Dr. Christopher Liberatore (RYAT)

Project: Exploring Methods for Long-Tailed Image Classification

Air Force Research Laboratory May 2019 - August 2019

Graduate Research Intern

Mentor: Mr. Christopher Menart (RYAT)

Project: Utilizing Knowledge Graphs for Explainable Neural Networks

Wright State University August 2018 - May 2019

Undergraduate Research Assistant

PI: Dr. Yong Pei

Project: Small Object Detection System for Autonomous Aircraft

## Air Force Research Laboratory

May 2018 - August 2018

Undergraduate Research Intern

Mentor: Ms. Ashley DeMange (RYDR)

Project: Assessing Spiking Neural Network Performance on FPGAs

# Marketo, Inc. (Now Adobe)

May 2017 - August 2017

Quality Assurance Intern

Portland, OR

Dayton, OH

# Research Interests

Computer Vision, Machine Learning, Deep Learning, Knowledge Distillation, Learning from Limited Data, Generalization, Robustness, Confidence Calibration

#### **Publications**

## L. Frank, J. Davis

"What Makes a Good Dataset for Knowledge Distillation?" arXiv:2411.12817, November 2024

#### R. Sunderhaft, L. Frank, J. Davis

"Deep Learning Improvements for Sparse Spatial Field Reconstruction" arXiv:2408.1253, August 2024

## L. Frank, J. Davis

"Data-Free Knowledge Distillation Using Adversarially Perturbed OpenGL Shader Images" arXiv:2310.13782, October 2023

#### J. Davis, L. Frank

"Revisiting Batch Norm Initialization"

European Conference on Computer Vision (ECCV), October 2022

#### L. Frank, C. Wiegman, J. Davis, S. Shearer

"Confidence-Driven Hierarchical Classification of Cultivated Plant Stresses" IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), January 2021

# Z. Daniels, L. Frank, C. Menart, M. Raymer, P. Hitzler

"A Framework for Explainable Deep Neural Models Using External Knowledge Graphs" SPIE Defense and Commercial Sensing, April 2020

# INVITED TALKS

October 2024

"Data-Free Knowledge Distillation Using Adversarially Perturbed OpenGL Shader Images"

#### AWARDS

# **SMART Scholarship Recipient**

April 2019

U.S. Department of Defense

# Professional

# Reviewer

Clarifai

SERVICE

CVPR: 2025, 2024, 2023, 2022

ECCV: 2024, 2022 ICCV: 2023 WACV: 2024

#### **Mentored Students**

Robert Sunderhaft (B.S. Data Analytics) Spring 2023 - Spring 2024 Christopher Cosma (B.S. Computer Science and Engineering) Spring 2022 - Spring 2023

# TEACHING EXPERIENCE

# Ohio State University

Software 1: Components (CSE2221)

Graduate Teaching Associate (Lecturer)

Fall 2019, Spring 2020, Fall 2023, Spring 2024, Fall 2024

"One of the best teachers I have had in my life, not just in college. Knew the content in and out, and taught with a true passion"

- Anonymous Student 1, Spring 2020

"Overall Logan Frank is one of the best professors I have encountered so far in my college career. He goes out of his way to make the content of the course better, providing additional resources of his own specifically for students, and is willing to help students at all times. He [is] also just very friendly and a nice person"

- Anonymous Student 2, Spring 2020

"One of the best professors of my college career"

- Anonymous Student 3, Spring 2020

# Wright State University

Circuit Analysis (EE2000) *Undergraduate Teaching Assistant* Spring 2019

## Wright State University

Physics II: Electricity and Magnetism (PHY2410) *Undergraduate Teaching Assistant* Fall 2017, Spring 2018, Fall 2018

TECHNICAL SKILLS Python, PyTorch, Singularity containers, PBS job scheduler, Slurm job scheduler, Git version control, Bash scripting, Java

OTHER

# NCAA Division 1 Athlete - Swimming

August 2015 - June 2017

Wright State University

United States Citizen

June 1997 - Present