# Max Wolff

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#### EDUCATION

Wesleyan University

Middletown, CT, USA

BA, Physics

2021 - 2025 (expected)

EXPERIENCE

Research Intern

May 2022 – Present

Max Planck Institute for Intelligent Systems

Tübingen, Germany

• Basic machine learning research in Wieland Brendel's group.

Research

January 2020 - May 2021

 $Wolff\ Household$ 

Los Angeles, CA, USA

• Did basic machine learning research with my father, and we published two papers together. One was on the security of neural text detectors and was accepted to a workshop at ICLR 2020; the other was on gaining a better understanding of feature preference in CNNs and was accepted to SVRHM 2021.

Volunteer/Engineer

August 2020 – April 2021

AI4K12

Remote

• Built a web-based educational demonstration of facial detection using TinyYOLOv2. This was done under the supervision of David Touretzky at Carnegie Mellon.

Research Intern

July 2019 – November 2019

Carnegie Mellon University

Remote

• Worked remotely with Mahmood Sharif on improving the security of facial recognition algorithms.

Research Intern

June 2018 – August 2018

University of Illinois at Urbana-Champaign

Urbana, IL, USA

 Worked with Professor Christopher Fletcher on using capsule networks for unsupervised learning and generative modeling.

#### Publications

## The Independent Compositional Subspace Hypothesis for the Structure of CLIP's Last Layer

Max Wolff, Wieland Brendel, Stuart Wolff

Me-FoMo @ ICLR 2023

## Signal Strength and Noise Drive Feature Preference in CNN Image Classifiers

Max Wolff, Stuart Wolff

SVRHM @ NeurIPS 2021

#### **Attacking Neural Next Detectors**

Max Wolff, Stuart Wolff

Trustworthy Machine Learning @ ICLR 2020

#### TECHNICAL SKILLS

Programming Languages: Python Frameworks: PyTorch, TensorFlow Languages: English, German (in progress)