# Sunnie S. Y. Kim

### **EMPLOYMENT**

| 2025-Now | Apple |
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Research scientist in the Human-Centered Machine Intelligence & Responsible AI group

2023 **Microsoft Research** 

Research intern in the FATE (Fairness, Accountability, Transparency & Ethics in AI) group

### **EDUCATION**

### 2020–2025 Princeton University

PhD in Computer Science

Dissertation: Advancing Responsible AI with Human-Centered Evaluation Committee: Olga Russakovsky (adviser), Andrés Monroy-Hernández Jennnifer Wortman Vaughan, Q. Vera Liao, Parastoo Abtahi

#### Toyota Technological Institute at Chicago 2019-2020

Visiting student advised by Greg Shakhnarovich

### 2014–2018 Yale University

Bachelor of Science in Statistics and Data Science

GPA 3.91/4.00, magna cum laude, Distinction in the major Recognition for outstanding dedication to the department

Senior thesis advised by John Lafferty

### HONORS, AWARDS & FELLOWSHIPS

| 2025      | FAccT 2025 Doctoral Consortium  |
|-----------|---|
| 2025      | CHI 2025 Honorable Mention Award 🏅  |
| 2025      | CHI 2025 Special Recognition for Outstanding Review (2 for Papers, 1 for LBW) |
| 2024      | Georgia Tech Doctoral Consortium on Responsible Computing, AI, and Society    |
| 2024      | MIT Rising Stars in EECS Recognition 🜟  |
| 2024      | Siebel Scholars Award (\$35,000) 🜟  |
| 2024      | CHI 2024 Doctoral Consortium  |
| 2024      | Princeton SEAS Travel Grant Award   |
| 2023      | CHI 2023 Honorable Mention Award 🏅  |
| 2023      | SIGCHI Gary Marsden Travel Award  |
| 2022-2025 | NSF Graduate Research Fellowship (\$138,000) 🜟                                |
| 2022-2023 | ML Reproducibility Challenge Outstanding Reviewer Award ( $\times 2$ )        |
| 2020-2023 | Women in Computer Vision Workshop Travel and Registration Award               |
| 2018      | Yale Adrian Van Sinderen Book Collecting First Prize (\$1,000)                |
| 2016      | Yale Summer Research Fellowship   |
| 2014-2018 | Korea Presidential Science Scholarship (\$200,000) 🜟                          |

#### **PAPERS**

### **Preprints**

Measuring and Mitigating Overreliance is Necessary for Building Human-Compatible AI Lujain Ibrahim, Katherine M. Collins, Sunnie S. Y. Kim, Anka Reuel, Max Lamparth, Kevin Feng, Lama Ahmad, Prajna Soni, Alia El Kattan, Merlin Stein, Siddharth Swaroop, Ilia Sucholutsky, Andrew Strait, Q. Vera Liao, Umang Bhatt

PersonaTeaming: Exploring How Introducing Personas Can Improve Automated AI Red-Teaming

Wesley Hanwen Deng, <u>Sunnie S. Y. Kim</u>, Akshita Jha, Ken Holstein, Motahhare Eslami, Lauren Wilcox, Leon A Gatys

### Conference and Journal Publications (Peer-Reviewed)

2025 Fostering Appropriate Reliance on Large Language Models: The Role of Explanations, Sources, and Inconsistencies

Sunnie S. Y. Kim, Jennifer Wortman Vaughan, Q. Vera Liao, Tania Lombrozo, Olga Russakovsky ACM Conference on Human Factors in Computing Systems (CHI) Honorable Mention Award (Featured in Microsoft's New Future of Work Report and presented at 10+ places through invited and contributed talks)

Portraying Large Language Models as Machines, Tools, or Companions Affects What Mental Capacities Humans Attribute to Them

Allison Chen, <u>Sunnie S. Y. Kim</u>, Amaya Dharmasiri, Olga Russakovsky, Judith E. Fan *Annual Meeting of the Cognitive Science Society* (**CogSci**)

2024 "I'm Not Sure, But...": Examining the Impact of Large Language Models' Uncertainty Expression on User Reliance and Trust

<u>Sunnie S. Y. Kim</u>, Q. Vera Liao, Mihaela Vorvoreanu, Stephanie Ballard, Jennifer Wortman Vaughan ACM Conference on Fairness, Accountability, and Transparency (**FAccT**)

(Featured in Axios, New Scientist, ACM showcase, Microsoft's New Future of Work Report, and the Human-Centered AI Medium publication as "Good Reads in Human-Centered AI")

2023 "Help Me Help the AI": Understanding How Explainability Can Support Human-AI Interaction

<u>Sunnie S. Y. Kim</u>, Elizabeth Anne Watkins, Olga Russakovsky, Ruth Fong, Andrés Monroy-Hernández

ACM Conference on Human Factors in Computing Systems (CHI) Honorable Mention Award (One of the top 10 cited CHI papers in 2023–2024 (as of Dec 2024); Featured in the Human-Centered AI Medium publication as "CHI 2023 Editors' Choice; Invited for talks at multiple AI and HCI conference workshops)

Humans, AI, and Context: Understanding End-Users' Trust in a Real-World Computer Vision Application

Sunnie S. Y. Kim, Elizabeth Anne Watkins, Olga Russakovsky, Ruth Fong, Andrés Monroy-Hernández

ACM Conference on Fairness, Accountability, and Transparency (FAccT)

Overlooked Factors in Concept-based Explanations: Dataset Choice, Concept Learnability, and Human Capability

Vikram V. Ramaswamy, <u>Sunnie S. Y. Kim</u>, Ruth Fong, Olga Russakovsky *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)* 

2022 HIVE: Evaluating the Human Interpretability of Visual Explanations

Sunnie S. Y. Kim, Nicole Meister, Vikram V. Ramaswamy, Ruth Fong, Olga Russakovsky European Conference on Computer Vision (ECCV)

(Selected as spotlight and invited for talks at multiple AI and HCI conference workshops)

# Shallow Neural Networks Trained to Detect Collisions Recover Features of Visual Loom-Selective Neurons

Baohua Zhou, Zifan Li, Sunnie S. Y. Kim, John Lafferty, Damon A. Clark

eLife (Journal for the biomedical and life sciences)

# [Re] Don't Judge an Object by Its Context: Learning to Overcome Contextual Bias

Sunnie S. Y. Kim, Sharon Zhang, Nicole Meister, Olga Russakovsky

**ReScience** C (Journal for reproducible replications in computational science)

## Fair Attribute Classification through Latent Space De-biasing

Vikram V. Ramaswamy, Sunnie S. Y. Kim, Olga Russakovsky

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)

(Featured in Coursera's GANs Specialization course and the MIT Press Book *Foundations of Computer Vision*; Invited for talks at multiple AI conference workshops)

# Information-Theoretic Segmentation by Inpainting Error Maximization

Pedro Savarese, <u>Sunnie S. Y. Kim</u>, Michael Maire, Gregory Shakhnarovich, David McAllester *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)* 

# 2020 Deformable Style Transfer

<u>Sunnie S. Y. Kim</u>, Nicholas Kolkin, Jason Salavon, Gregory Shakhnarovich European Conference on Computer Vision (ECCV)

# Which Grades Are Better, A's and C's, or all B's? Effects of Variability in Grades on Mock College Admission Decisions

Woo-kyoung Ahn, Sunnie S. Y. Kim, Kristen Kim, Peter K. McNally

Judgment and Decision Making (Journal for the psychology of human judgment and decision making)

### Workshop Papers and Extended Abstracts (Lightly Peer-Reviewed)

# 2025 Improving Automated LLM Evaluation by Introducing Personas in LLM Red-Teaming

Wesley Hanwen Deng, <u>Sunnie S. Y. Kim</u>, Akshita Jha, Ken Holstein, Motahhare Eslami, Lauren Wilcox, Leon A Gatys

**NeurIPS** Workshop on LLM Evaluation

# Portraying Large Language Models as Machines, Tools, or Companions Affects What Mental Capacities Humans Attribute to Them

Allison Chen, <u>Sunnie S. Y. Kim</u>, Amaya Dharmasiri, Olga Russakovsky, Judith E. Fan *CHI Extended Abstracts (Late Breaking Work)* 

# Interactivity x Explainability: Toward Understanding How Interactivity Can Improve Computer Vision Explanations

Indu Panigrahi, <u>Sunnie S. Y. Kim</u>\*, Amna Liaqat\*, Rohan Jinturkar, Olga Russakovsky, Ruth Fong, Parastoo Abtahi

CHI Extended Abstracts (Late Breaking Work)

# 2024 Establishing Appropriate Trust in AI through Transparency and Explainability

Sunnie S. Y. Kim

# CHI Extended Abstracts (Doctoral Consortium)

# Human-Centered Explainable AI (HCXAI): Reloading Explainability in the Era of Large Language Models (LLMs)

Upol Ehsan, Elizabeth Anne Watkins, Philipp Wintersberger, Carina Manger, <u>Sunnie S. Y. Kim</u>, Niels van Berkel, Andreas Riener, Mark O. Riedl

CHI Extended Abstracts (Workshop Proposal)

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

# Allowing Humans to Interactively Guide Machines Where to Look Does Not Always Improve Human-AI Team's Classification Accuracy

Giang Nguyen, Mohammad Reza Taesiri, Sunnie S. Y. Kim, Anh Nguyen

CVPR Workshop on Explainable AI for Computer Vision

# 2023 Explainable AI for End-Users

Sunnie S. Y. Kim, Elizabeth Anne Watkins, Olga Russakovsky, Ruth Fong, Andrés

Monroy-Hernández

CHI Workshop on Human-Centered Explainable AI

# 2022 Closing the Creator-Consumer Gap in XAI: A Call for Participatory XAI Design with End-users

Sunnie S. Y. Kim, Elizabeth Anne Watkins, Olga Russakovsky, Ruth Fong, Andrés

Monroy-Hernández

**NeurIPS** Workshop on Human-Centered AI

# **ELUDE:** Generating Interpretable Explanations via a Decomposition into Labelled and Unlabelled Features

Vikram V. Ramaswamy, <u>Sunnie S. Y. Kim</u>, Nicole Meister, Ruth Fong, Olga Russakovsky **CVPR** Workshop on Explainable AI for Computer Vision

### 2021 Cleaning and Structuring the Label Space of the iMet Collection 2020

Vivien Nguyen\*, Sunnie S. Y. Kim\*

CVPR Workshop on Fine-Grained Visual Categorization

### White Papers and Technical Reports (Not Peer-Reviewed)

### 2025 AI Adoption Across Mission-Driven Organizations

Dalia Ali, Muneeb Ahmed, Arfa Khan, Hailan Wang, <u>Sunnie S. Y. Kim</u>, Meet Muchhala, Anne Merkle, Orestis Papakyriakopoulos

TUM Think Tank

### 2018 Environmental Performance Index

Zachary A. Wendling, John W. Emerson, Daniel Esty, Marc Levy, Alex de Sherbinin, ..., Sunnie S. Y. Kim, et al.

**World Economic Forum** (Environmental Performance Index is a large-scale evaluation of 180 countries' environmental health and ecosystem vitality. As the data team lead, I built the full data pipeline and led the analysis work. The results were presented at the World Economic Forum and covered by international media outlets.)

### **TALKS**

2025 NAVER AI Lab & HCI Group

Yonsei CSI 7110 Topics in Responsible AI Course

Princeton COS 598B Machine Behavior Course

Apple Human-Centered Machine Intelligence & Responsible AI Group

Cornell Information Science Colloquium

Johns Hopkins Computer Science Seminar

Boston University Computing & Data Sciences Colloquium

SNU AI Computing Winter School

2024 Cornell Tech Social Technologies Lab

ECCV 2024 Workshop on Explainable Computer Vision

Princeton Concepts & Cognition Lab MILA Human-Centered AI Reading Group IBS Data Science Group KAIST Kim Jaechul Graduate School of AI NYC Computer Vision Day 2023 Explainable AI Talk Series CHI 2023 Workshop on Human-Centered Explainable AI 2022 NeurIPS 2022 Workshop on Human-Centered AI CVPR 2022 Workshop on Explainable AI for Computer Vision 2021 CVPR 2021 Workshop on Responsible Computer Vision CVPR 2021 Workshop for Women in Computer Vision 2020 Princeton Course COS 429 Computer Vision Course Princeton PIXL Talk Series Princeton Bias in AI Reading Group

## **ORGANIZING COMMITTEE**

| 2025 | FAccT 2025 (Proceedings Co-Chair)                                       |
|------|---|
|      | CVPR 2025 Workshop on Explainable AI for Computer Vision (Co-Organizer) |
|      | NYC Computer Vision Day 2025 (Event Program Committee)                  |
| 2024 | CVPR 2024 Workshop on Explainable AI for Computer Vision (Co-Organizer) |
|      | CHI 2024 Workshop on Human-Centered Explainable AI (Co-Organizer)       |
| 2023 | CVPR 2023 Workshop on Explainable AI for Computer Vision (Co-Organizer) |
|      | CVPR 2023 Workshop for Women in Computer Vision (Co-Organizer)          |
| 2018 | NESS NextGen Data Science Day 2018 (Local Organizing Committee)         |

### **PROGRAM COMMITTEE & REVIEWING**

### Conferences

NeurIPS (2025 Main track & Ethics review)

CVPR (2022, 2023, 2024, 2025), ICCV (2021, 2023), ECCV (2022, 2024)

CHI (2023, 2024, 2025\*\*, 2026 AC of Computational Interaction subcommittee)

FAccT (2023, 2024, 2025), AIES (2024), SaTML (2023)

# **Workshops & Extended Abstracts**

CVPR 2025 Workshop on Explainable AI for Computer Vision CHI 2025 Late Breaking Work\*

<sup>\*</sup> indicates special recognitions for outstanding reviews

CHI 2024 Workshop on Human-Centered Explainable AI

CVPR 2024 Workshop on Explainable AI for Computer Vision

NeurIPS 2023 Workshop on Explainable AI in Action

ICML 2023 Workshop on AI & HCI

CVPR 2023 Workshop on Explainable AI for Computer Vision

CVPR 2023 Workshop for Women in Computer Vision

AAAI 2023 Workshop on Representation Learning for Responsible Human-Centric AI

CVPR 2021 Workshop on Responsible Computer Vision

# Challenges

ML Reproducibility Challenge (2020, 2021\*, 2022\*)

#### **Books**

Foundations of Computer Vision (Authors: Antonio Torralba, Phillip Isola, and William T. Freeman)

Handbook of Human-Centered Artificial Intelligence (Editor-in-Chief: Wei Xu)

#### **MENTORING**

### **Research Mentoring**

| 2024-2025 | <b>Allison Chen</b> (CS PhD student at Princeton. Recipient of the NSF Graduate Research Fellowship) |
|-----------|--|
|           | Understanding How People Attribute Mental Capacities to LLMs (paper published in CHI EA)             |

- 2024–2025 **Indu Panigrahi** (CS Master's student at Princeton, incoming CS PhD student at UIUC) *Incorporating Interactivity in AI Explanations* (paper published in *CHI EA*)
- 2022–2023 **Rohan Jinturkar** (CS undergrad at Princeton. Recipient of the Sigma Xi Book Award for Outstanding Undergraduate Research & Outstanding CS Senior Thesis Prize)

  Developing an Interactive, Dialogue-based AI Explanation System for Non-Experts (senior thesis)
- 2020–2022 Nicole Meister (ECE undergrad at Princeton, now EE PhD student at Stanford. Recipient of the NSF Graduate Research Fellowship, Calvin Dodd MacCracken Senior Thesis/Project Award & Sigma Xi Book Award for Outstanding Undergraduate Research)

  Evaluating AI Explanations & Mitigating Contextual Bias in Visual Recognition Systems (papers published in ECCV and ReScience C)
- 2020–2021 **Sharon Zhang** (Math undergrad at Princeton, now CS PhD student at Stanford. Recipient of the Sigma Xi Book Award for Outstanding Undergraduate Research)

  Mitigating Contextual Bias in Visual Recognition Systems (paper published in ReScience C)

### **Non-Research Mentoring**

2022–2023 Princeton Computer Science G1 Mentoring Program

2021–2022 Princeton Computer Science Graduate Applicant Support Program

### **TEACHING**

2021 Princeton Computer Science 429 Computer Vision

**Graduate Teaching Assistant** 

#### **Princeton AI4ALL**

Instructor

2019-2020 TTI-Chicago Girls Who Code

Co-Founder and Instructor

2018 Yale Statistics and Data Science 365/565 Data Mining and Machine Learning

Undergraduate Teaching Assistant

2017 Yale Statistics and Data Science 230/530 Data Exploration and Analysis

Undergraduate Teaching Assistant

### **OTHER ACTIVITIES**

### **Community Building**

2022–2023 Explainable AI Slack and Twitter Community (Co-Organizer)

2017–2019 Yale Dimensions Organization for Women and Other Minorities in Math (Co-Founder)

### **Volunteering**

ECCV (2024), FAccT (2024), CVPR (2022), ICML (2020), ICLR (2020), NeurIPS (2019-2020)

NSF Safety and Trust in AI-Enabled Systems Workshop (2022)

COVID Translate Project (2020)

#### Committee

2021 Princeton Computer Science Graduate Admissions Committee

2017–2019 Yale Statistics & Data Science Departmental Student Advisory Committee