# Sunnie S. Y. Kim

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# **EDUCATION**

2020-Now	Princeton University PhD candidate in Computer Science advised by Olga Russakovsky Committee: Andrés Monroy-Hernández, Jenn Wortman Vaughan, Vera Liao, Parastoo Abtahi Expected graduation date: May 2025
2019-2020	Toyota Technological Institute at Chicago 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 Senior thesis advised by John Lafferty

# WORK EXPERIENCE

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2023	Microsoft Research FATE (Fairness, Accountability, Transparency & Ethics in AI) PhD research intern supervised by Jenn Wortman Vaughan and Vera Liao
2017-2019	Yale Center for Environmental Law and Policy Data team lead for Environmental Performance Index supervised by Jay Emerson
2017	Fathom Information Design Data analyst intern supervised by Ben Fry

# **HONORS, AWARDS & FELLOWSHIPS**

2025	CHI 2025 Special Recognition for Outstanding Review ( $\times$ 2)
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
2019	Yale Statistics and Data Science Certificate of Appreciation for Outstanding Dedication
2018	Yale Adrian Van Sinderen Book Collecting First Prize (\$1,000)
2016	Yale Summer Research Fellowship
2014-2018	Korean Presidential Science Scholarship (\$200,000) 🜟

#### **PAPERS**

## **Working Papers**

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

Allison Chen, Sunnie S. Y. Kim, Amaya Dharmasiri, Olga Russakovsky, Judith E. Fan

Interactivity x Explainability: 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

#### **Conference and Journal Publications**

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 Conditionally accepted to ACM Conference on Human Factors in Computing Systems (CHI) (Featured in Microsoft's New Future of Work Report)

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 Monrov-Hernández

ACM Conference on Human Factors in Computing Systems (CHI) Honorable Mention Award (Featured in the Human-Centered AI Medium publication as CHI 2023 Editors' Choice and 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

<u>Sunnie S. Y. Kim</u>, Elizabeth Anne Watkins, Olga Russakovsky, Ruth Fong, Andrés Monrov-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, <u>Sunnie S. Y. Kim</u>, 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* and 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, Extended Abstracts, and Technical Reports**

# 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)

# 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 (XAI4CV)

#### 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 (HCXAI)

# 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 (HCAI)

# **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 (XAI4CV)

#### 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 (FGVC)

#### 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**

#### **Invited Talks and Guest Lectures**

- 2025 **SNU AI Computing Winter School**, Building Responsible AI with Human-Centered Evaluation
- 2024 Cornell Tech Social Technologies Lab, Building Trustworthy and Appropriately Trusted AI

ECCV Workshop on Explainable Computer Vision: Where are We and Where are We Going?, Human-Centered Approaches to Explainable Computer Vision

**Princeton Concepts & Cognition Lab**, Fostering Appropriate Reliance on Large Language Models: The Role of Explanations, Sources, and Inconsistencies

MILA Human-Centered AI Reading Group, Explainability and Trust in Human-AI Interaction

**IBS Data Science Group**, Establishing Appropriate Trust in AI through Transparency & Explainability

**KAIST Kim Jaechul Graduate School of AI**, Supporting End-Users' Interaction with AI through Transparency & Explainability

2023 **Explainable AI Talk Series**, "Help Me Help the AI": Understanding How Explainability Can Support Human-AI Interaction

#### **Shorter Invited and Contributed Talks**

- NYC Computer Vision Day, Bridging Computer Vision and HCI: Understanding End-Users' Trust and Explainability Needs in a Real-World Computer Vision Application
- 2023 CHI Workshop on Human-Centered Explainable AI (HCXAI), Explainable AI for End-Users
- NeurIPS Workshop on Human-Centered AI (HCAI), Closing the Creator-Consumer Gap in XAI: A Call for Participatory XAI Design with End-Users

**CVPR Workshop on Explainable AI for Computer Vision (XAI4CV)**, HIVE: Evaluating the Human Interpretability of Visual Explanations

2021 **CVPR Workshop on Responsible Computer Vision (RCV)**, Fair Attribute Classification through Latent Space De-biasing

**CVPR Workshop for Women in Computer Vision (WiCV)**, Fair Attribute Classification through Latent Space De-biasing

#### **SERVICE**

# **Conference and Event Organization**

2025 FAccT 2025 Proceedings Chair

NYC Computer Vision Day Program Committee

2018 NESS NextGen Data Science Day Local Organizing Committee

# **Workshop Organization**

2025	CVPR 2025 Explainable AI for Computer Vision
2024	CVPR 2024 Explainable AI for Computer Vision
	CHI 2024 Human-Centered Explainable AI
2023	CVPR 2023 Explainable AI for Computer Vision
	CVPR 2023 Women in Computer Vision

#### Committee

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

# **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)

#### Volunteer

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)

### **PEER REVIEW**

#### **Conferences**

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

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

### Workshops

CHI 2024 Human-Centered Explainable AI

CVPR 2024 Explainable AI for Computer Vision

NeurIPS 2023 Explainable AI in Action

ICML 2023 AI & HCI

CVPR 2023 Explainable AI for Computer Vision

CVPR 2023 Women in Computer Vision

AAAI 2023 Representation Learning for Responsible Human-Centric AI

CVPR 2021 Responsible Computer Vision

# Challenges

ML Reproducibility Challenge (2020, 2021, 2022)

#### **Books**

Foundations of Computer Vision by Antonio Torralba, Phillip Isola, and William T. Freeman

#### **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	
MENTORING		
Research Mentoring		
2024-Now	<b>Allison Chen</b> (CS PhD student at Princeton. Recipient of the NSF Graduate Research Fellowship) Understanding How People Attribute Mental Capacities to LLMs (ongoing project)	
2024-Now	Indu Panigrahi (CS Master's student at Princeton) Incorporating Interactivity in AI Explanations (ongoing project)	
2022-2023	<b>Rohan Jinturkar</b> (CS undergrad at Princeton. Recipient of the Sigma Xi Book Award for Outstanding Undergraduate Research & Outstanding CS Senior Thesis Prize)	

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

Developing an Interactive, Dialogue-based AI Explanation System for Non-Experts (senior thesis)

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