

SaiKiran Tedla

Website: <https://tedlasai.github.io>
Email : tedlasai@gmail.com

Address: Toronto, Ontario

Education

York University, Toronto, Canada

Aug 2022–Aug 2026

PhD in Computer Science

GPA: A+

PhD Thesis: Demosaicing for New Sensor Patterns

Supervisor: [Dr. Michael Brown](#)

Successfully defended August 5, 2026.

York University Toronto, Canada

Jul 2022

Master of Science in Computer Science

GPA: A

MS Thesis: [Analyzing Color Imaging Failure on Consumer Grade Cameras](#)

Supervisor: [Dr. Michael Brown](#)

University of Colorado Springs, Colorado, USA

May 2019

Bachelor of Science in Computer Engineering

GPA: 3.99/4.0

Outstanding Undergraduate Student

Experience

Research Student, York University

May 2020–Present

• Computational Vision and Imaging Lab, [Dr. Michael Brown](#)

Toronto, Canada

• Research on computational imaging: color correction, exposure, focus, compression, and demosaicing.

Visiting Research Student, University of Toronto

Feb 2025–Present

• Computational Imaging Group, [Dr. David Lindell](#) and [Dr. Kyros Kutulakos](#)

Toronto, Canada

• Utilizing video diffusion models for image editing and working on low-light 3D reconstruction problems

Research Intern, Sony AI

July 2025–Mar 2025

• Imaging and Sensing, [Dr. Feiran Li](#) and [Dr. Daisuke Iso](#)

Tokyo, Japan

• Learning HDR reconstruction methods

Research Intern, Samsung AI Center Toronto

Mar 2025–July 2025

• Computational Photography, [Dr. Michael Brown](#) and [Dr. Mahmoud Affi](#)

Toronto, Canada

• Improving color correction within the camera pipeline with a focus on colorimetric accuracy

Research Intern, Adobe

May 2024–Jan 2025

• NextCam, [Dr. Shumian Xin](#), [Dr. Cecilia Zhang](#), and [Dr. Zhoutong Zhang](#)

San Jose, USA

• Implementing video diffusion models and 3D representations for the task of refocusing images

Research Intern, Samsung AI Center Toronto

Aug 2022–Aug 2023

• Computational Photography, [Dr. Michael Brown](#)

Toronto, Canada

• Learning demosaicing for various sensor patterns and raw reconstruction (Graphics2RAW)

Computer Vision Consultant, Scanwell Health

Apr 2021–Jan 2022

• Color Measurement

Los Angeles, USA

• Developed custom color correction algorithms for medical imaging applications

Research Student / System Administrator, UCCS

June 2015–Jan 2021

• Vision and Security Technology (VAST) Lab, [Dr. Terrance Boulton](#)

Colorado Springs, USA

• Built a Raspberry Pi Polarization Camera and worked on RGB camera response function estimation from polarization cues

System Architect, AMERGINT Technologies

May 2020–Mar 2021

- **Advanced Systems**

Colorado Springs, USA

- Reorganized and modified the build system for faster performance – improved build speed by up to 60%

App Development Intern, Keysight Technologies

May 2018–Aug 2018

- **IT**

Colorado Springs, USA

- Built a cross-platform emergency awareness app that went into production using Xamarin (C# and XAML)

Website Administrator, TEDxColoradoSprings / TEDxUCCS

Mar 2015–Mar 2016

- **Web Development**

Colorado Springs, USA

- Built and maintained the TEDxColoradoSprings and TEDxUCCS websites

Publications

- [1] **SaiKiran Tedla**, Francesco Banterle, Trevor Canham, Karanpreet Raja, David B Lindell, Kiriakos N Kutulakos, Jiacheng Li, Feiran Li, and Daisuke Iso. “Generating HDR Video from SDR Video”. In: *SIGGRAPH Asia*. 2026. [Project Page](#) / [Paper Link](#).
- [2] **SaiKiran Tedla***, Joshua E Little*, Hakki Can Karaimer, and Michael S Brown. “Off the Planckian Locus: Using 2D Chromaticity to Improve In-Camera Color”. In: *European Conference on Computer Vision (ECCV)* (2026). *Equal contribution, **Spotlight Oral**, [Project Page](#) / [Paper Link](#).
- [3] **SaiKiran Tedla**, Abhijith Punnappurath, Luxi Zhao, and Michael S Brown. “Examining Joint Demosaicing and Denoising for Single-, Quad-, and Nona-Bayer Patterns”. In: *IEEE International Conference on Computational Photography (ICCP)*. 2025. [Code](#) / [Paper Link](#).
- [4] **SaiKiran Tedla**, Zhoutong Zhang, Xuaner Zhang, and Shumian Xin. “Learning to Refocus with Video Diffusion Models”. In: *ACM SIGGRAPH Asia Conference (SIGGRAPH Asia)*. 2025. [Project Page](#).
- [5] **SaiKiran Tedla**, Kelly Zhu, Trevor Canham, Felix Taubner, Michael S Brown, Kiriakos Kutulakos, and David Lindell. “Generating the Past, Present, and Future from a Motion-Blurred Image”. In: *ACM Transactions on Graphics, SIGGRAPH Asia (ToG)*. 2025. [Project Page](#).
- [6] **SaiKiran Tedla***, Junyong Lee*, Beixuan Yang, Mahmoud Afifi, and Michael S Brown. “Multi-spectral Demosaicing via Dual Cameras”. In: *IEEE/CVF International Conference on Computer Vision (ICCV)*. 2025. *Equal contribution, **Highlight award**, [Project Page](#).
- [7] **SaiKiran Tedla**, Scott MacKenzie, and Michael Brown. “LookToFocus: Image Focus via Eye Tracking”. In: *ACM Symposium on Eye Tracking Research and Applications (ETRA COGAIN)*. 2024. [Project Page](#).
- [8] **SaiKiran Tedla***, Beixuan Yang*, and Michael S Brown. “Examining autoexposure for challenging scenes”. In: *IEEE/CVF International Conference on Computer Vision (ICCV)*. 2023. *Equal contribution, [Project Page](#).
- [9] **SaiKiran Tedla**, Yunyuan Wang, Maitri Patel, and Michael S Brown. “Analyzing color imaging failure on consumer-grade cameras”. In: *Journal of the Optical Society of America A (JOSA A)* 39.6 (2022). [Paper Link](#).
- [10] Andrew Y Guo, Anagh Malik, **SaiKiran Tedla**, Yutong Dai, Yiqian Qin, Zach Salehe, Benjamin Attal, Sotiris Nousias, Kyros Kutulakos, and David B Lindell. “Dark3R: Learning Structure from Motion in the Dark”. In: *IEEE/CVF Computer Vision and Pattern Recognition (CVPR)*. 2026. **Highlight award**, [Project Page](#).
- [11] Hodaka Kawachi, Tomoya Nakamura, Yasushi Yagi, **SaiKiran Tedla**, Trevor Canham, and Michael Brown. “Embedding information into images taken with consumer camera using coded ambient lighting”. In: *IEEE/CVF Computer Vision and Pattern Recognition Findings (CVPRF)*. 2026. [Paper Link](#).

- [12] Trevor D Canham, **SaiKiran Tedla**, Michael J Murdoch, and Michael S Brown. “Gain-MLP: Improving HDR Gain Map Encoding via a Lightweight MLP”. In: *IEEE/CVF International Conference on Computer Vision (ICCV)*. 2025. [Project Page](#).
- [13] Abhijith Punnappurath, Luxi Zhao, Hoang Le, Abdelrahman Abdelhamed, **SaiKiran Tedla**, and Michael S Brown. “Improved mapping between illuminations and sensors for RAW images”. In: *Journal of the Optical Society of America A (JOSA A)* 42.8 (2025). [Paper Link](#).
- [14] Trevor Canham, **SaiKiran Tedla**, Michael J Murdoch, and Michael S Brown. “Gamma Maps: Non-linear Gain Maps for HDR Reconstruction”. In: *London Imaging Meeting (LIM)*. Vol. 5. Society for Imaging Science and Technology. 2024. [Paper Link](#).
- [15] Donghwan Seo, Abhijith Punnappurath, Luxi Zhao, Abdelrahman Abdelhamed, **SaiKiran Tedla**, Sanguk Park, Jihwan Choe, and Michael S Brown. “Graphics2RAW: mapping computer graphics images to sensor raw images”. In: *IEEE/CVF International Conference on Computer Vision (ICCV)*. 2023. [Code](#) / [Paper Link](#).

Preprints and Patents

- [1] **SaiKiran Tedla**, Zhoutong Zhang, Xuaner Zhang, and Shumian Xin. “Learning to Refocus with Video Models”. Provisional patent application. 2026.
- [2] **SaiKiran Tedla**, Kelly Zhu, Trevor Canham, Felix Taubner, Michael S Brown, Kiriakos Kutlakos, and David Lindell. “Generating the Past, Present, and Future from a Motion-Blurred Image”. In: (2026). Provisional patent application.
- [3] **SaiKiran Tedla**, Abhijith Punnappurath, Luxi Zhao, and Michael Scott Brown. “Examining Joint Demosaicing and Denoising for Single-Bayer, Quad-Bayer, and Nona-Bayer Patterns”. US18823268. US Patent Application, Patent pending. May 2025. [Patent Link](#).
- [4] **SaiKiran Tedla***, Junyong Lee*, Beixuan Yang, Mahmoud Afifi, and Michael Brown. “Multi-spectral Demosaicing via Dual Cameras”. Provisional patent application, *Equal contribution. 2025.

Honors and Awards

Doctoral Consortium 2026

European Conference on Computer Vision (ECCV)

- Accepted to the [ECCV 2026 Doctoral Consortium](#).

Eric and Wendy Schmidt AI in Science Postdoctoral Fellowship 2026-2028

Schmidt Sciences and University of Toronto

- Awarded the [Eric and Wendy Schmidt AI in Science Postdoctoral Fellowship](#) (\$85,000/year) in Dec 2025 to explore generative re-photography at the University of Toronto.

Arts and Sciences Postdoctoral Fellowship (Declined) 2026

University of Toronto

- Awarded the University of Toronto in Science postdoctoral fellowship (\$65,000/year) to explore generative re-photography at the University of Toronto.

Outstanding Reviewer Award 2025, 2026

IEEE / CVPR

- Recognized among the top 5.6% of reviewers for CVPR 2025 and top 5% for CVPR 2026.

PhD Graduate Fellowship 2022-2026

York University

- Fellowship from York University (\$32,500/year).

People's Choice Award	2024
<i>Lassonde School of Engineering Photography Competition</i>	
Received the People's Choice Award for best photograph in the annual Lassonde Engineering Photography Competition.	
Masters Graduate Fellowship	2020-2022
<i>York University</i>	
Fellowship from York University (\$17,000/year).	
Outstanding Undergraduate Student	2019
<i>University of Colorado Colorado Springs, Computer Engineering</i>	
Awarded to the top undergraduate student in Computer Engineering.	
Leon Young Scholarship	2017
<i>Educating Children of Color, Colorado Springs</i>	
Awarded to the student who best honors the legacy of Leon Young, the first Black mayor of Colorado Springs.	
Fairness for All Scholarship	2017
<i>Educating Children of Color, Colorado Springs</i>	
Awarded to the student who best demonstrates fairness and justice within the community.	

Talks

[1] Generative Re-Photography with Video Models	May 2026
<i>University of Washington, Hosted by Steve Seitz</i>	Presentation
[2] Generative Re-Photography with Video Models	Apr 2026
<i>CMU VASC Seminar, Hosted by Ioannis Gkioulekas</i>	Presentation
[3] Generative Re-Photography with Video Models	Apr 2026
<i>Princeton PIXL Seminar, Hosted by Felix Heide</i>	Presentation
[4] Generative Re-Photography with Video Models	Apr 2026
<i>Cornell Tech, Hosted by Noah Snively</i>	Presentation
[5] Generative Re-Photography with Video Models	Apr 2026
<i>MIT CSAIL Vision Seminar, Hosted by Vincent Sitzmann</i>	Presentation
[6] Generative Re-Photography with Video Models	Apr 2026
<i>Harvard - Zickler Lab, Hosted by Todd Zickler</i>	Presentation
[7] Generative Re-Photography with Video Models	Apr 2026
<i>MIT Media Lab - Camera Culture, Hosted by Ramesh Raskar</i>	Presentation
[8] Generative Re-Photography with Video Models	Apr 2026
<i>Stanford University, Hosted by Gordon Wetzstein</i>	Presentation
[9] Generative Re-Photography with Video Models	Apr 2026
<i>University of California Berkeley, Hosted by Laura Waller</i>	Presentation
[10] Generative Re-Photography	Feb 2026
<i>Sony AI, Tokyo, Japan</i>	Presentation
[11] Generative Re-Photography	Oct 2025
<i>University of Osaka, Tokyo, Japan</i>	Presentation
[12] Generative Re-Photography	Oct 2025
<i>Spatial AI Network, Computer Vision League (CVL) – Osaka, Japan</i>	Presentation
[13] Examining Autoexposure for Challenging Scenes	Mar 2024
<i>Vector AI Workshop on Computer Vision, Toronto, Ontario</i>	Presentation

Reviewing

- 1: Conference on Computer Vision and Pattern Recognition (CVPR), 2024–2026, **Outstanding Review Award 2025, 2026**
- 2: Conference on Neural Information Processing Systems (NeurIPS), 2026
- 3: SIGGRAPH Asia, 2026
- 4: European Conference on Computer Vision (ECCV), 2024, 2026
- 5: British Machine Vision Conference (BMVC), 2026
- 6: IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2025
- 7: SIGGRAPH, 2025
- 8: Winter Conference on Applications of Computer Vision (WACV), 2023

In the Media

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|---|----------------------------------|
| [1] Sai T. is helping advance the future of AI-powered photography and computer vision.
<i>Lassonde School of Engineering, York University</i> | Jul 2026
Link |
| [2] Demand for computer scientists surging — not shrinking — as AI marches on
<i>Toronto Star and York University</i> | Mar 2026
Link |
| [3] Colorado Springs senior earns bachelor's degree in high school
<i>KRDO</i> | May 2019
Link |

Advising and Mentorship

Graduate Students

- [Karanpreet Raja](#) (Aug 2025 – Present)
- [Beixuan Yang](#) (Mar 2022 – Mar 2025)

Undergraduate Students

- [Joshua Little](#) (Apr 2025 – Mar 2026)
- [Karanpreet Raja](#) (Jan 2025 – Aug 2025)
- [Rajat Ajaykumar](#) (Aug 2022 – Mar 2023)

Teaching

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| EECS 1516: Object-Oriented Design and Principles
<i>Teaching Assistant, York University</i> | Winter 2024, Winter 2025, Winter 2026 |
| EECS 1022: Programming for Mobile Computing
<i>Teaching Assistant, York University</i> | Fall 2024 |
| EECS 1570: Computing for Psychology
<i>Teaching Assistant, York University</i> | Winter 2023 |
| MATH 1090: Introduction to Logic for Computer Science
<i>Teaching Assistant, York University</i> | Fall 2022 |
| EECS 1012/1015: Introduction to Computer Science
<i>Teaching Assistant, York University</i> | Fall 2021, Winter 2022, Fall 2023 |
| CS 1150: Principles of Computer Science
<i>Teaching Assistant, University of Colorado Colorado Springs</i> | Fall 2018, Winter 2019 |

Skills

Programming: Java, C++, C, Python, HTML, CSS, JavaScript, MATLAB

Projects: FastSwap (social media app for contact sharing via QR codes); Political Ideology Detector (NLP-based web app); Robotic Car (GPS navigation, obstacle avoidance, sensor integration); Quadcopters (reverse engineering and reconstruction)

Certifications: Oracle Java SE 8 Professional (OCP); C++ Associate (C++ Institute); CompTIA Linux+; LPIC-1: Linux Administrator

References

Dr. Michael S. Brown

Professor, Dept. of Electrical Engineering and Computer Science

York University; Vice President, Samsung Research America; Director, Samsung AI Center Toronto
Toronto, Canada

[Webpage](#)

Email: michael.brown@yorku.ca

Dr. David B. Lindell

Assistant Professor, Dept. of Computer Science

University of Toronto; Faculty Affiliate, Vector Institute
Toronto, Canada

[Webpage](#)

Email: lindell@cs.toronto.edu

Dr. Kiriakos N. Kutulakos

Professor, Dept. of Computer Science

University of Toronto

Toronto, Canada

Phone: (416) 946-8045

[Webpage](#)

Email: kyros@cs.toronto.edu