

Kaleab A. Kinfu

Experience

- 09/2020 – **Research Assistant**, *JHU Mathematical Institute for Data Science*, Baltimore, MD.
Advisors: Prof. René Vidal and Prof. Joshua T. Vogelstein
- 05/2022 – **Research Intern**, *Microsoft Research*, Redmond, WA.
08/2022 *Team: Special Projects.*
- 08/2020 – **Computer Vision Researcher**, *Excento*, Gdańsk, Poland.
12/2020 *Manager: Dr. Anna Jezierska.*
- 02/2020 – **Research Associate**, *Institute of Computer Graphics and Vision, TU Graz*, Austria.
07/2020 *Advisor: Prof. Horst Bischof.*
- 05/2019 – **Research Intern**, *UAM Video Processing and Understanding Lab*, Madrid, Spain.
08/2019 *Advisors: Prof. Pablo C. Lopez and Prof. Marcos E. Viñolo.*

Education

- 2021 – 2025 **Ph.D., Computer Science**, *Johns Hopkins University*, Baltimore, MD.
Advisor: Prof. René Vidal.
- 2020 – 2021 **M.S.E., Biomedical Engineering**, *Johns Hopkins University*, Baltimore, MD.
Advisor: Prof. Joshua T. Vogelstein.
- 2018 – 2020 **M.S., Informatique**, *Université de Bordeaux*, Bordeaux, France.
Advisors: Prof. Vincent Lepetit and Prof. Pascal Desbarats.
- 2018 – 2020 **M.S., Image Processing and Computer Vision**, *Universidad Autónoma de Madrid*, Madrid, Spain.
Advisor: Prof. Pablo Carballera Lopez.
- 2018 – 2020 **M.S., Computer Science Engineering**, *Pázmány Péter Catholic University*, Budapest, Hungary.
Advisor: Prof. György Cserey.
- 2013 – 2017 **B.S., Computer Science**, *Addis Ababa University*, Addis Ababa, Ethiopia.

Research Interests

Computer Vision: Pose Estimation, Scene Understanding, Video Understanding.

Machine Learning: Lifelong Learning, Robustness, Generalization.

Publications & Preprints

Kinfu, Kaleab A. and René Vidal. Analysis and Extensions of Adversarial Training for Video Classification. *Computer Vision and Pattern Recognition Workshop*, 2022.

Vogelstein, Joshua T. et al. Prospective Learning: Back to the Future. *ArXiv, abs/2108.13637*, 2022.

Xu, Haoyin, **Kinfu, Kaleab A.** et al. When are Deep Networks really better than Decision Forests at small sample sizes, and how? ArXiv abs/2108.13637, 2021.

Kinfu, Kaleab A. Partition & Decode: an implicit internal representation framework. M.S.E. Thesis. Johns Hopkins University, 2021.

Kinfu, Kaleab A. Lifelong Learning for Autonomous Vehicles. M.S. Thesis. Technische Universität Graz, 2020.

Skills

Languages Python, C/C++, Java, Matlab, C#, PHP

Libraries PyTorch, TensorFlow, OpenCV, scikit-learn, SciPy, OpenGL, PCL

Selected Honors and Awards

2021 Google CS Research Mentorship Program Scholar.

2018 Erasmus+, Erasmus Mundus Joint Master Scholarship (EUR 49,000).

2017 Best Bachelor Thesis Award, Addis Ababa University.

2017 Very Great Distinction, Dux of College of Natural Sciences, Addis Ababa University.

Professional Activities

Program Committee

1st Workshop on Out-of-distribution Generalization and Adaptation in Natural and Artificial Intelligence, NeurIPS 2021.

External Reviewer

Research Development Fund, Xi'an Jiaotong-Liverpool University.

Invited Talks

Robustness in Action Recognition Networks.

Sep 2022 Image Processing and Computer Vision Workshop.

Sep 2022 Guest Lecture, Xi'an Jiaotong-Liverpool University.

Real-time Depth Estimation on Embedded Systems.

Aug 2022 AI Power Talk, Microsoft Research.

Lifelong Learning for Autonomous Vehicles.

Mar 2022 GradCohort, Computing Research Association.

Sep 2020 Pázmány Péter Catholic University.

Lifelong Learning: Theory and Practice.

Sep 2021 THEORINET, Simons Foundation.

Introduction to Artificial Intelligence. [bootcamp]

Aug 2021 American Spaces - U.S. Embassy, Addis Ababa.

Mentorship

Mentor JHU Research Experience for Undergraduates.

Mentor Emerging African Scholars Mentorship Program.

Mentor Young African Explorers Programme.