

MARK HAMILTON

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Website: www.mhamilton.net

Full CV: https://mhamilton.net/files/cv_no_info.pdf

EDUCATION

Massachusetts Institute of Technology 2019-Present
Ph.D Student in Computer Science, NSF GRFP Fellow GPA: 5.0/5.0
Thesis: *Unsupervised Structure Discovery with Foundation Models* Advisor: William T Freeman

Yale University 2012 - 2016
Bachelors of Science in Mathematics and Physics with Distinction Magna Cum Laude, GPA: 3.9/4.0
Thesis: *Language Independent Automated Theorem Proving* Advisor: Gregg Zuckerman

WORK EXPERIENCE

Microsoft New England Research and Development August 2016-Current
Senior Engineering Manager Cambridge, MA

- Lead the SynapseML project: A distributed ML product in Microsoft Fabric, Azure Synapse Analytics, and Azure Databricks that supports thousands of production ML workflows.
5k stars, 119 contributors, 4M downloads. Website: <https://aka.ms/spark>

SELECTED PUBLICATIONS

[SEE ALL 36 PUBLICATIONS](#) 

- [Hamilton MT](#), Hershey J., Zisserman A., Freeman W. *Separating the “Chirp” from the “Chat”*: Self-supervised Visual Grounding of Sound and Language. Computer Vision and Pattern Recognition (CVPR) 2024
- [Hamilton MT*](#), Fu S.*, et.al. *FeatUp: A Model-Agnostic Framework for Features at Any Resolution*. International Conference on Learning Representations (ICLR) 2024
- [Hamilton MT](#), et.al. *Seeing Faces in Things: A Model and Dataset for Pareidolia*. European Conference on Computer Vision 2024
- [Hamilton MT*](#), Walsh B*, et. al. *Large-Scale Automatic Audiobook Creation*. INTERSPEECH Show and Tell 2023. **TIME Top 200 Invention of 2023**
- [Hamilton MT](#), Zhang Z, Hariharan B, Snavely N, Freeman W. *Unsupervised Semantic Segmentation by Distilling Feature Correspondences*. ICLR, 2022
- [Hamilton MT](#), Lundberg S, Zhang L, Fu S, Freeman W. *Axiomatic Explanations for Visual Search, Retrieval, and Similarity Learning*. ICLR, 2022

RECENT AWARDS

2023	Winner	TIME Top 200 Inventions of 2023
2021	Winner	NSF Graduate Research Fellowship
2021	Winner (\$60k)	Systems That Learn Fellowship
2020	Winner (\$100k)	Systems That Learn Fellowship
2019	Distinguished Speaker	IEEE High Performance Extreme Computing
2019	Editors Choice Article	American Chemical Society
2019	Cover Article	Environmental Science and Technology
2016	Winner	Howard L. Schultz Prize for Experimental Physics