Kevin Li

My interests lie in efficient deep learning architectures, such as compression, distillation, and subquadratic alternatives. I'm open to collaboration, so please reach out!

kevinyli.com

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- CV PDF А
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- @kevinli573
- Google Scholar

Education

- Ph.D. in Machine Learning Aug. 2023 — Current Carnegie Mellon University, Pittsburgh, PA Advised by Albert Gu and Zico Kolter
- **B.S. in Computer Science** Aug. 2019 - May 2023 Georgia Institute of Technology, Atlanta, GA Overall GPA: 4.00/4.00
- **B.S. in Biomedical Engineering** Aug. 2019 - May 2023 Georgia Institute of Technology, Atlanta, GA Overall GPA: 4.00/4.00

Honors and Awards

Georgia Tech Provost's Academic Excellence Award Spring 2023 Selected to represent the College of Computing for most outstanding scholastic record G.D. Jain Outstanding Senior in Biomedical Engineering Award Spring 2023 Selected for exemplifying all-around excellence through their significant accomplishments in several of the following categories of activities: service, academics, research, industry, and entrepreneurship Fall 2022 CIKM 2022 NSF Travel Award Selected to receive the CIKM 2022 NSF Travel Award President's Undergraduate Research Award (PURA) Fall 2022 Selected to receive Georgia Tech's PURA award for work on Argo Scholar Summer 2022 First Place, Qualcomm Intern Hackathon 1st place at Qualcomm's intern hackathon for creating information propagation framework for autonomous vehicles Undergraduate Teaching Assistant of the Year, Georgia Institute of Technology Spring 2022 Selected as one of three undergraduate teaching assistants to be awarded the institute-wide award for TAing CS4641/7641 Machine Learning Undergraduate Teaching Assistant of the Year, College of Computing Spring 2022 Selected as UTA of the year for the CSE school under the College of Computing for TAing CS4641/7641 Machine Learning Best Poster Honorable Mention, IEEE VIS Fall 2021 For "Argo Scholar: Interactive Visual Exploration of Literature in Browsers" Winner, HackGT6 Hackathon Fall 2019 Winner of "Marketplace of the Future" challenge by Anthem for work on accessing medicine availability based on insurance information

Academic Research Experience

Carnegie Mellon University, Pittsburgh, PA Oct. 2023 - Current Graduate Research Assistant, Advisor: Albert Gu and Zico Kolter Georgia Institute of Technology, Atlanta, GA Aug. 2020 - May 2023 Undergraduate Research Assistant, Polo Club of Data Science Advisor: Duen Horng (Polo) Chau Conducted research in machine learning, human-computer interaction, and the intersection of the two. Georgia Institute of Technology, Atlanta, GA Jan. 2019 — Dec. 2019 Student Researcher, Laboratory for Intelligent Decision and Autonomous Robots (LIDAR) Lab Advisor: Ye Zhao Worked on controlling cost-effective, physical model of the human hand.

Industry Experience

- **Bosch**, Pittsburgh, PA June 2023 — Present Machine Learning Research Intern, Qualcomm, San Diego, CA May 2022 — Aug. 2022 Data Engineer Intern, Autonomous Driving Amazon Web Services, Seattle, WA May 2021 — July 2021
- Software Development Engineer Intern, Tax Team Georgia Tech Office of Information and Technology, Atlanta, GA July 2020 — Dec. 2020

Team Lead and Web Developer,

Publications

Conference

- C3 Transformers to SSMs: Distilling Quadratic Knowledge to Subquadratic Models Aviv Bick*, Kevin Y. Li*, Eric P. Xing, J. Zico Kolter, Albert Gu Conference on Neural Information Processing Systems (NeurIPS). Vancouver, Canada, 2024.
- **Concept Evolution in Deep Learning Training: A Unified Interpretation Framework and Discoveries** C2 Haekyu Park, Seongmin Lee, Benjamin Hoover, Austin P. Wright, Omar Shaikh, Rahul Duggal, Nilaksh Das, Kevin Li, Judy Hoffman, Duen Horng Chau ACM International Conference on Information and Knowledge Management (CIKM). Birmingham, UK, 2023.
- **Robust Principles: Architectural Design Principles for Adversarially Robust CNNs** C1 ShengYun Peng, Weilin Xu, Cory Cornelius, Matthew Hull, Kevin Li, Rahul Duggal, Duen Horng Chau, Jason Martin

British Machine Vision Conference (BMVC). Aberdeen, UK, 2023. 🔗 Project 📘 PDF 🌾 Code 📃 BibTeX 🍷 Best Poster

Poster

Evaluating Robustness of Vision Transformers on Imbalanced Datasets Ρ4

Kevin Li, Rahul Duggal, Duen Horng Chau Association for the Advancement of Artificial Intelligence (AAAI). Washington DC, USA, 2023. 🔗 Project 🛛 🛓 PDF

NeuroMapper: In-browser Visualizer for Neural Network Training Ρ3

Zhiyan Zhou, Kevin Li, Haekyu Park, Megan Dass, Austin Wright, Nilaksh Das, Duen Horng Chau IEEE VIS: Visualization & Visual Analytics (IEEE VIS). Oklahoma City, OK, 2022. 🔗 Project 📘 PDF 🖾 Poster 🌾 Code 📃 BibTeX

Evaluation of Argo Scholar with Observational Study Ρ2

Kevin Li, Haoyang Yang, Evan Montoya, Anish Upadhayay, Zhiyan Zhou, Jon Saad-Falcon, Duen Horng Chau

IEEE VIS: Visualization & Visual Analytics (IEEE VIS). Oklahoma City, OK, 2022. 🔗 Project 📘 PDF 🖾 Poster 🌾 Code 📃 BibTeX

Argo Scholar: Interactive Visual Exploration of Literature in Browsers P1

Kevin Li, Haoyang Yang, Anish Upadhayay, Zhiyan Zhou, Jon Saad-Falcon, Duen Horng Chau IEEE VIS: Visualization & Visual Analytics (IEEE VIS). Virtual, 2021. 🔗 Project 📘 PDF 🖾 Poster 🌾 Code 📃 BibTeX 🏆 Best Poster, Honorable Mention

Demo

Diffusion Explainer: Interactive Visual Learning for Stable Diffusion D2

Seongmin Lee, Ben Hoover, Hendrik Strobelt, Zijie J. Wang, Anthony Peng, Austin Wright, Kevin Li, Haekyu Park, Alex Yang, Polo Chau

The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR). Vancouver, Canada, 2023.

Visual Exploration of Literature with Argo Scholar D1

Kevin Li, Haoyang Yang, Evan Montoya, Anish Upadhayay, Zhiyan Zhou, Jon Saad-Falcon, Duen Horng Chau

ACM International Conference on Information and Knowledge Management (CIKM). Atlanta, GA, 2022. 🔗 Project 📘 PDF 🖾 Poster 🍫 Code 📃 BibTeX 🛟 DOI

Preprint

Press

"2023 Provost's Academic Excellence Award Recipients," Georgia Tech, Office of Undergraduate Education Apr. 2023

- "Power of People Recognized at College, Institute Awards Ceremonies," Georgia Tech, College of Apr. 2023 Computing
- "Students, Faculty Finish the Year Strong with Awards Ceremonies," Georgia Tech, College of Computing Apr. 2022
- "2022 TA and Future Faculty Awards Day," Georgia Tech, Center for Teaching and Learning Apr. 2022

"Former Student Earns Top Award at Premier Visualization Conference," Georgia Tech, College of Oct. 2021 Computing

"New NVIDIA Partnership Bridges Education Gap for Data Science and Machine Learning," Georgia Tech, June 2021 College of Computing

Teaching

Spring 2021 - Spring **Head Teaching Assistant** 2023

Georgia Institute of Technology, Atlanta, GA

Machine Learning (CS 4641/7641), Instructor: Mahdi Roozbahani, Nakul Gopalan

Brainstormed, delegated, and implemented course improvements and oversaw assignment creation and checks. Wrote and graded ML theory and programming assignments for grad and undergrad classes with 750+ students in total. Helped guide, provide feedback, and grade semester-long group projects focused on applying ML to various fields.

Spring 2019 - Fall 2020 **Teaching Assistant**

Georgia Institute of Technology, Atlanta, GA

Intro Physics II (PHYS 2212), Instructor: Ed Greco

Assisted students during lab sections and debugging students' Python code during modeling assignments.

Service

Educational Outreach

CMU Graduate Application Support Program, 2023

Mentored 2 PhD applicants from historically underrepresented groups with statement of purpose and application.

CMU TechNights, 2023

Developed and presented lesson plan and planned activities for STEM outreach program for female middle schoolers on deep learning/foundational model introduction

NVIDIA Deep Learning Institute, 2021

Helped develop lecture slides and hands-on labs with included datasets and sample solutions in Python and interactive Jupyter notebook formats for the NVIDIA DLI Data Science toolkit.

Institutional

Georgia Tech Student Government Association (SGA) Curriculum and Classroom Practices Committee Chair, 2020-2021 Led committee of 9 in a push to update Georgia Tech's health curriculum to better suit students' and their needs. Spearheaded revamping of PLUS (Peer-Led Undergraduate Study) sessions to increase accessibility and impact.

Georgia Tech SGA Educational Enhancement Committee, 2019-2020

Revitalized health course curriculum by analyzing student feedback, benchmarking against peer institutions, and pushing forward solutions

References

Dr. Albert Gu, Assistant Professor Machine Learning Department Carnegie Mellon University https://goombalab.github.io

Dr. Zico Kolter, Professor Machine Learning Department Carnegie Mellon University https://zicokolter.com

Dr. Duen Horng (Polo) Chau, Professor

School of Computational Science and Engineering Georgia Institute of Technology cc.gatech.edu/~dchau/