Sidharth Baskaran

sidnbaskaran@gmail.com | sidnb13 | sidharth-baskaran | sidbaskaran.com

Education

Georgia Institute of Technology Aug. 2022 – Present (on-leave)
B.S. Computer Science, GPA: 4.0 *Atlanta, GA*

- **Coursework**: Data Structures & Algorithms, Linear Algebra, Multivariable Calculus, Honors Discrete Math
- **Awards**: President's Undergraduate Research Salary Award (Summer & Fall 2023), Faculty Honors

Experience

Founding Engineer & Researcher June 2023 – Present
Automorphic (YC S23) *San Francisco, CA*

- Developing novel architectural and training methods for continual learning and domain knowledge infusion in language models while mitigating task interference
- Researching methods for sample-efficient alignment for improved factuality of language models
- Developed various custom internal tools for data processing, training, and inference of models

Research Collaborator April 2024 – Present
Confirm Labs *Remote*

- Exploring new ways of leveraging sparse autoencoders to extract circuits from transformer language models
- Worked on hypernetwork-based model editor architecture that intervenes on a target model's activations given natural language instructions

Research Intern June 2023 – July 2023
Oak Ridge National Laboratory *Oak Ridge, TN (Remote)*

- Adapted the Relational Transformer and Tokenized Graph Transformer architectures to support property prediction tasks on crystal structures and explored heterogeneous GNN architectures

Undergraduate Researcher Sept. 2022 – July 2023
Fung Lab, Georgia Tech School of Computational Science & Engineering *Atlanta, GA*

- Developed a novel model-agnostic method involving virtual nodes to improve performance of graph neural networks (GNNs) on metal organic framework regression tasks (PURA recipient)
- Helped develop MatDeepLearn by implementing distributed training and hyperparameter optimization; optimized large-scale data preprocessing through a batch processing routine optimized for graphs

Publications & Preprints

Gupta, A., Baskaran, S., & Anumanchipalli, G. (2024). Rebuilding rome : Resolving model collapse during sequential model editing. ACL 2024 KnowledgeLM workshop. Retrieved from https://arxiv.org/abs/2403.07175 (link, pdf, code)

Technical Skills

Languages: Python, Java, JavaScript, MATLAB/Octave, C++, HTML/CSS, LaTeX
Skills: PyTorch, Docker, Git, Ray, Slurm, GCP, Unix, CAD & prototyping