S I Harini

Goa, India

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Education

BITS Pilani K.K. Birla Goa Campus — *Goa,India*

Bachelor of Engineering — *Nov 2020 - May 2024*

- **CGPA:** 8.53/10
- **Minor in Data Science**
- **Courses:** Linear Algebra, Differential Calculus, Probability and Statistics, Data Structures and Algorithms, Discrete mathematical structures, Object Oriented Programming, Database systems, Meta Learning, Artificial Intelligence, Machine Learning, Foundations of Data Science, Applied Statistical Methods, Deep Learning, Reinforcement Learning
- **Teaching:** Meta Learning, Object Oriented Programming, Machine Learning

Experience

Adobe Media and Data Science Research — *Noida, India*

Research Intern, MTS — *Jun 2023- Present*

- Worked on predicting media memorability using Multimodal LLMs
- Trained a model for image emotion prediction that is integrated into Adobe GenStudio
- Worked on measuring and improving persuasiveness of LLMs
- Worked on improving content understanding abilities of Multimodal LLMs.
- **Supervised by:** Balaji Krishnamurthy, Dr. Changyou Chen, Dr. Rajiv Ratn Shah

Autonomous Agents Lab, Stanford University — *Remote*

Research Intern — *Aug 2023-Jan 2024*

- Worked on a framework to effectively generate task simulations from language input
- Released a generative simulation benchmark to assess accuracy in facilitating zero-shot transfers in reinforcement learning.
- **Supervised by:** Dr. Nick Haber and Dr. Jiajun Wu

APPCAIR Lab, TCS Research — *Goa, India*

Student Researcher — *July 2022 - May 2023*

- Worked on solving the Abstract Reasoning Challenge (ARC) with neurosymbolic techniques.
- Used meta reinforcement learning and ILP techniques to model financial markets.
- Collaborating with a team of researchers from TCS Research and **supervised by:** Dr. Ashwin Srinivasan.

Google Summer of Code — *Remote*

Contributor — *June 2022 - Sept 2022*

- Contributed to the development of ArviZ, a tool for exploratory analysis of Bayesian models, and Gen.jl, a general-purpose probabilistic programming system with programmable inference embedded in Julia.
- Developed a compatibility layer for using ArviZ visualization functionality with Gen traces, to facilitate integration between the two systems and improve their overall functionality.
- **Supervised by:** Ravin Kumar and Seth Axen.

Publications and Patents

FACTORSIM: Generative Simulation via Factorized Representation — *Vancouver, Canada*

NeurIPS 2024 — *2024*

*Fan-Yun Sun, **S I Harini**, Angela Yi, Yihan Zhou, Alex Zook, Jonathan Tremblay, Logan Cross, Jiajun Wu, Nick Haber*

[Code] [Paper] [Website]

Long-Term Ad Memorability: Understanding and Generating Memorable Ads — *Arizona, USA*

WACV 2025 — *2024*

S I Harini, Somesh Singh*, Yaman Kumar*, Aanisha Bhattacharya, Veeky Baths, Changyou Chen, Rajiv Ratn Shah, Balaji Krishnamurty*

[Code] [Paper] [Website]

Measuring And Improving Persuasiveness Of Generative Models

Under Review at ICLR 2025

Somesh Singh, Yaman Kumar*, **S I Harini***, Balaji Krishnamurty*

[Paper] [Website]

LLaVA Finds Free Lunch: Teaching Human Behavior Improves Content Understanding Abilities of LLMs

Under Review at ICLR 2025 | Top 10% of submissions

Somesh Singh, **S I Harini***, Yaman Kumar*, Balaji Krishnamurty, Veeky Baths*

[Paper]

Neuro-symbolic Meta Reinforcement Learning for Trading *Washington, DC, USA*

Oral Presentation | The AAAI-2023 Workshop on Multimodal AI for Financial Forecasting *2022*

***S I Harini**, Gautam Shroff, Ashwin Srinivasan, Prayushi Faldu, Lovekesh Vig*

[Paper]

Projects

DualNet for Continual Learning *Goa,India*

Course Project *Mar 2022 - Apr 2022*

- Implemented the paper, DualNet from NeurIPS '21, which proposes a new architecture for continual learning.
- Extended the model to be used on financial market data and achieved promising results.
- Used Mixup and other techniques to further improve the performance of the model.
- **Code can be found at: [link]**

ATP Binding sites in protein synthesis *Goa,India*

Project supervised by Dr. Swati Agrawal *Jan 2022 - Apr 2022*

- Developed an ensemble model using CNNs and LightGBM for predicting ATP binding sites in protein sequences.
- Explored various feature engineering techniques to extract important structural features from the sequences, including secondary structure, physicochemical properties, and evolutionary conservation.

Source code synthesis *Goa,India*

Project supervised by Dr. Swati Agrawal *Jan 2022 - Apr 2022*

- Built a preliminary model for Code search, with a simple encoder decoder architecture which computes the cosine similarity of the embeddings for searching.
- Finetuned the CodeBERT model for Code Search on C/C++.
- Trained and finetuned a code clone detection model across multiple languages.

Skills

Languages	Python, Java, C, C++, Julia, Scala.
Toolkits	Pandas, PyTorch, NumPy, Scikit-learn, Tensorflow, Linux
Miscellaneous	Linux, Shell (Bash/Zsh), LaTeX, Git.