Soorya Veeravalli

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EDUCATION

University of Massachusetts Amherst, *MS in Computer Science* | USA   GPA: 4.0/ 4.0   Jan 2025 - Dec 2026

Course work: Advanced NLP, Reinforcement Learning, Data Science

International Institute of Information Technology Hyderabad, *B.Tech in Computer Science*   July 2017 - Jun 2021

Course work: Data Structures and Algorithms, Database systems, Statistical Methods in AI, Computer Vision, Computer Networks, Distributed Systems

RESEARCH EXPERIENCE

Research Assistant, *Advisor: Prof. Hong Yu* | BioNLP lab, UMass Amherst   June 2025 - Present

- Developing a reasoning agent using Monte Carlo Tree Search (MCTS) for LLMs to autonomously explore and select optimal reasoning paths from a diverse set of actions, like sub question decomposition and search query generation
- Augmenting the MCTS framework for LLMs with retrieval actions, allowing the agent to dynamically search and retrieve relevant external documents during its reasoning process.

Research Assistant, *Advisor: Prof. Avinash Sharma* | CVIT lab, IIIT Hyderabad   May 2019 - Apr 2021

- Proposed a novel approach employing Bidirectional LSTMs to generate complex long-term(6000ms) human motion trajectory across diverse activity classes.

PUBLICATIONS

[1] Battan Neeraj, Agrawal Yudhik, Rao Sai Soorya, Goel Aman, and Sharma Avinash. Glocalnet: Class-aware long-term human motion synthesis. *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2020.

PROJECTS

Model Editing for Debiasing LLMs | Adv. NLP | UMass Amherst   Jan 2025 - May 2025

- Developed a debiasing strategy that intervenes in the internal representations of large language models through projection based model editing. Used PyTorch and Huggingface for implementation.
- Leveraged causal tracing to identify and correct biased representations with minimal performance loss.

View Adaptive Neural Networks for Action Recognition | Computer Vision | IIIT Hyderabad   Jan 2020 - May 2020

- Implemented a view adaptation module within RNN based architectures to normalize skeleton sequences to a consistent viewpoint prior to action classification.
- Enhanced recognition robustness by jointly learning view normalization and action prediction.

PROFESSIONAL EXPERIENCE

Microsoft, *Software Engineer 2 (Azure Cloud services)* | Hyderabad, India   Jun 2021 - Jan 2025

- Key member of **Azure Native Service** teams for **Datadog** and **Dynatrace**. Instrumental in sustaining continuous growth and achieving an annual Azure revenue exceeding **$XXX million.**
- Developed an **easy trial** experience for ISV partners on Azure. Ensuring uninterrupted setup for partner-integrated services such as log forwarding and metrics integration. Resulted in heightened **user engagement** (link)
- Developed a scalable **multi-subscription monitoring** for Azure Native ISV solutions, simplifying setup across subscriptions using single resource. Achieved a significant **10x** increase in log-flow growth, enhancing monitoring capabilities.
- Handled **7** services as part of Observability Platform team's common on-call rotation.

SKILLS

Languages	C/C++, Python, C#, Java, GoLang, Typescript, Next.js, CUDA, Bash
Frameworks and Databases	Node.js, .NET, Knockout.js, MySQL, Azure CosmosDB
Tools	Git, Postman, Docker, Kubernetes, Microsoft Power Apps
Cloud computing	Azure Could Services (Databricks, Synapse Analytics, Functions, SQL Server, Data Lake)

ACHIEVEMENTS

- Microsoft Mountain Movers Awarded for delivering exceptional team performance
- Dean's List 2 honoree for Academic Excellence 2019-20 at IIIT Hyderabad
- Attained a remarkable All India Rank of 698 in JEE Mains, a highly competitive entrance exam with over one million candidates.