Suri Sai Viswanadha Aditya

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Education

BITS Pilani — Pilani, India
Bachelor of Engineering in Computer Science | Minor in Data Science, GPA: 8.15 — *2020 - 2024*

FIITJEE Junior College — Hyderabad, India
Higher Secondary Classes, 98.2% — *2018 - 2020*

Gitanjali Devashray — Hyderabad, India
Central Board of Secondary Education, 96% — *2018*

Publications

Dissertation

- **Suri, A.** (2024). "False Memories and AI." *Bachelor's Thesis.*
  Investigated how conversational AI influences false memory formation through a comparative study of four conditions (N=200), demonstrating that generative chatbots significantly increase false memory rates compared to traditional methods, both immediately and after one week.
  Supervisors: Pattie Maes, Kamlesh Tiwari

Under Review

- Chan, S.*, Pataranutaporn, P.*, **Suri, A.***, Zulfikar, W., Maes, P., & Loftus, E. F. (2024). "Conversational AI Powered by Large Language Models Amplifies False Memories in Witness Interviews." *Science Advances.*
- Maniar, N., Chan, S., Zulfikar, W., Ren, S., Xu, C., **Suri, A.**, & Maes, P. (2024). "MemPal: Using LLMs and Multimodal AI Models to Augment Memory and Support Independent Living for the Aging Population." *ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT).*

Experience

Fluid Interfaces, MIT Media Lab — January 2024 – June 2024
Visiting Student — *Cambridge, MA*

- Led false memory formation research using conversational AI agents, resulting in co-first-author paper (under review, Science Advances)
- Built real-time inference pipeline for Memeye project, achieving 98% accuracy in learning phase classification by combining pupil and biosignal data
- Developed MemPal: AI voice assistant for elderly using CLIP embeddings and chromaDB (under review, ACM-IMWUT)
- Contributed to AlterEgo 2.0's non-invasive neural interface development for silent speech to aid people with speech impediments

BITS Pilani - Mercedes Benz — January 2023 – May 2023
Student Researcher — *Pilani, India*

- Built conditional VAE models for generating customizable automobile part designs based on designer specifications
- Created end-to-end system with interactive UI for real-time design specification and modification
- Developed hybrid GAN-VAE architecture enabling controlled parameter generation through disentangling latent space

Carnegie Mellon University — September 2022 – June 2023
Intern — *Pittsburgh, PA*

- Led implementation of Multi-Armed Bandit algorithms for Project Robotutor one of five $1M Finalists in the $15M Global Learning XPRIZE competition
- Designed hybrid local-global model architecture for offline learning using Java for Android Development
- Enhanced personalized learning system reaching thousands of African students, adapting to individual learning styles

Cognida.AI June 2022 – December 2022

Machine Learning Intern *Hyderabad, India*

- Built document analysis system using OpenCV for structural layout detection with text-region blurring algorithm
- Developed production Python applications for routing optimization using XGBoost and Bayesian NIG models
- Implemented real-time prediction APIs and web interfaces for ML model deployment
- Integrated predictive algorithms into production systems with proper testing and deployment practices

CSIR-CEERI January 2022 – August 2022

Research Intern *Pilani, India*

- Created a dataset of multi-class diseased fruits implementing augmentation algorithms that affect specific parts of the image
- Achieved 95% accuracy on classification of diseased fruit dataset using Mask-RCNN, enabling automation of the separation of diseased fruit on the sorting line

Sally Robotics August 2021 – July 2023

Computer Vision and Navigation Researcher *Pilani, India*

- Developed self-driving car system optimized for Indian road conditions
- Secured Rs 1,00,000 funding for 3D Reconstruction and Autonomous Mobile Robot with gesture-controlled manipulator
- Implemented Reinforcement Learning algorithms and ROS-based navigation systems

ContenTerra Software May 2022 – July 2022

Summer Intern *Hyderabad, India*

- Developed Single Sign On Application for efficient authentication and authorization
- Contributed to end-to-end solutions for clients ranging from startups to enterprises

Persior July 2021 – September 2021

Software Engineer *Pilani, India*

- Led web development team for EdTech venture, implementing React frontend and Node.js backend

Projects

Diabetic Retinopathy Classification 2023

* Developed a high-performing Resnet-inspired CNN model for five-class Diabetic Retinopathy classification, achieving 97% accuracy through effective handling of data imbalance by image augmentation
* Implemented an innovative approach combining CLIP encoders with ChatGPT-generated symptom detection through prompt engineering to enhance classification accuracy

Pose and Gesture Estimation 2022

* Worked on building an AI sports coach for athletes to automatically analyze sports footage, summarize inefficiencies and suggest improvements. Utilized state-of-the-art human landmark detection models to identify, estimate and evaluate actions in gymnastic and badminton videos.
* Created Hand Gesture Recognition Demo using mediapipe that uses realtime camera feed to classify multiple hand gestures to inspire a new generation of young entrepreneurs. classified various gestures like open, close, number of fingers and also a pointer to draw on the screen. Presented how computer visions and algorithms could be used to create engaging and practical applications.

Honors & Leadership

* **International Chess Player:** Achieved ELO rating of 1900 and three-time state champion. Represented India at World Youth Chess Championship 2016 in Greece and led BITS Pilani chess team in inter-collegiate tournaments
* **Google Campus Ambassador:** Selected as one of two representatives from 300+ applicants at BITS Pilani. Organized technical workshops and bridged student community with Google's learning initiatives
* **APOGEE Technical Festival Coordinator:** Led 50-member Audiforce department managing events for 2000+ participants. Oversaw team coordination and event management for BITS Pilani's national technical festival
* **Robotics and Peer Mentor:** Guided high school team "Binary Bolts" through FIRST Robotics Competition 2022. Selected as mentor for freshman batch to provide academic and social guidance