Anirudh Kambhampati

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WORK EXPERIENCE

University of Missouri | CERI   **Columbia, MO**
Graduate Research Assistant   *August 2022 - Present*
- Improved the efficiency of WFMZ-TV Newsrooms by 80% by implementing efficient data management solution to orchestrate the dataflow between S3, DynamoDB and webapp built on React, Flask, MYSQL and hosted on EC2.
- Built the RISE system that automates upscale Microscope control with Reinforcement Learning (MADDPG) improving accuracy in image analytics. It also features Web-Portal with Chatbot built using MERN stack, S3 and hosted in EC2.
- Led the design and development of a cloud based secure architecture for medical IOT devices.
- Built a novel Pedagogical Agent in Metaverse that teaches Cyberdefense to people in Neuro divergent spectrum with Reinforcement Learning (DQN).
- Working on the CAVE system in VR and communicating with stakeholders on demos and working ideas to improve research focus in VR.

Cognizant Technological Solutions   **Chennai, IND**
Programmer Analyst Trainee   *Oct 2021-March 2022*
- Demonstrated hands-on learning and initiative by cloning websites such as Amazon and Udemy and other user-friendly interfaces using React JS, Redux, Node JS, Mongo DB gaining practical experience and deepening understanding of web development concepts.

RESEARCH PAPAERS

- *"Learning-based Image Analytics in User-AI Agent Interactions for Cyber-enabled Manufacturing"*
  Conference: **IEEE ICHMS |** Status: Accepted
  Index-terms: RL, AI, Control feedback, Image Analytics, Network Security, Chatbots
- *"Empathy-Driven Design and Inclusive Cybersecurity Education: The Initial Phase of the uSucceed Project's Virtual Reality Curriculum for Neurodiverse Adults in STEM"*
  Conference: **IEEE iLRN2024 |** Status: Accepted
  Index-terms: Pedagogical Agent, DQN, GCP, VR, Enhanced Learning, Cyberdefense, Escape Rooms
- *"Automation of News Content Curation and Storytelling for Local Newsrooms"*
  Conference: **2023 IEEE DIKW Conference** | Status: Accepted
  Index-terms: Local News, Data Curation, Artificial Intelligence, Machine Learning, Neural Networks

EDUCATION

University of Missouri-Columbia   **Columbia, MO**
Masters in computer science   *August 2022-June 2024*

SKILLS

- **Cloud technologies and DevOps:** Amazon Web Services
- **Cloud Tools:** S3 Bucket, DynamoDB, EC2, Lambda, CloudWatch, KMS, VPC, IAM, Dialogflow
- **Databases:** MySQL, MongoDB
- **Programming Languages & Source Control:** Python, JavaScript, C#, Git.
- **Frameworks and Tools:** React Native, Vite, Redux Toolkit, Flask, NodeJS, Unity, Microservices, REST APIs, Postman, Microsoft Graph API, TensorFlow, Pytorch.
- **RL models:** Q-Learning, Deep Q Networks, MADDPG (Multi Agent Deep Deterministic Policy Gradient), A2C (Advantage Actor Critic)