

Anirudh Kambhampati

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WORK EXPERIENCE

University of Missouri | CERI

Columbia, MO

Graduate Research Assistant

August 2022 – August 2024

- 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.
- Developed a data pipeline leveraging Hadoop and Spark to analyze and filter tweets for toxicity, sentiment, and categorization. Integrated results into an Anvil web application for streamlined data visualization and interaction.
- Built the RISE system that automates upscale Microscope control with Reinforcement Learning (MADDPG, Q-Learning) improving accuracy in image analytics. It also features Web-Portal with Chatbot built using MERN stack, S3 and hosted in EC2. [YouTube Video](#)
- 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).

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

[More Papers](#)

EDUCATION

University of Missouri-Columbia

Columbia, MO

Masters in computer science

August 2022-Present

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, Docker Containers
- **Frameworks and Tools**: React.dev, Vite, Redux Toolkit, Flask, NodeJS, Unity, Microservices, REST APIs, Hadoop, Spark, Postman, Microsoft Graph API, TensorFlow, Pytorch.
- **RL models**: Q-Learning, Deep Q Networks, MADDPG (Multi Agent Deep Deterministic Policy Gradient), A2C (Advantage Actor Critic)