Sri Anumakonda

Website | Email | Linkedin | Github | Twitter | Medium

EDUCATION

Carnegie Mellon University

Pittsburgh, PA

B.S. Robotics

Aug. 2024 - May 2028

EXPERIENCE

Undergraduate Researcher

Jan. 2025 – Present

Pathak Research Group

Pittsburgh, PA

- Working on RGB distillation for dexterous manipulation policies! More updates soon
- Implemented domain randomization + automatic domain randomization to the LEAP hand, testing in tasks such as cube reorientation and general in hand reorientation tasks in IsaacLab
- Added ROS2 support for LEAP Hand z-axis reorientation to allow for robust sim2real performance in IsaacGym
- Check out our open-source code where we added support for the reorientation task in IsaacLab!

Student Researcher

Jan. 2024 - Jun. 2024

University of Texas-Austin

• Researched vision-based SLAM systems with a PhD student to improve long-term data association performance

Student Researcher

Aug. 2023 – Nov. 2023

University of Illinois Urbana-Champaign

Generative modelling research with to create adversarial systems to train more for vision-based driving policies

Projects

CUDA-Optimized Semantic Segmentation for Autonomous Vehicles | Github

Feb. 2023 – May 2023

• Creating a U-Net-like architecture with custom loss functions to perform semantic segmentation on the CityScapes dataset with PyTorch's LibTorch C++ API and custom preprocessing

End2End Learning for Lateral Control | Github

Nov. 2021 – Jan. 2022

• Implemented NVIDIA's End2End Learning Paper from scratch to create a network for lateral control of autonomous vehicles with custom preprocessing and Canny edge detection

DataGAN: Leveraging Synthetic Data for Self-Driving Vehicles | Github Medium | Sept. 2021 - Nov. 2021

• Used DC-GANs (FCNs) to take in input images of road scenes from the Cityscapes dataset and understands in-depth features of what is a realistic scene image, following an approach similar to BigGAN

AWARDS

- HackPrinceton 2024 Healthcare Track Winner and Overall Finalist created Bartimaeus: Stealing Vision Back
- HackCMU 2024 Overall Winner created DebateZero: The Future of Debate Analysis
- Masason Foundation Scholar one of the 34 members selected (2% acceptance rate) of the 2022 cohort

Media

- Austin Robotics and AI: Why World Models Are Resurging in Robotics, tweet
- Austin Computer Vision Meetup (sponsored by Voxel51): <u>Scaling Autonomous Vehicles with End2end Learning</u>, recap article
- SirusXM: Meet 3 Teens in Canada Who are Changing and Impacting the World With Tech
- The Logic: The Young Canadian innovators getting a boost from Softbank's Son
- David Silver: Sri Builds a Real Self-Driving Car!
- Udacity: Autonomous Tech Dreams of the 14-year-old Sri Anumakonda, accompanying article

TECHNICAL SKILLS

Interests: Simulation Training, Dexterous Manipulation, Sim-To-Real, Computer Vision, Autonomous Vehicles, Deep Reinforcement Learning

Languages: Python, C++, Java, HTML/CSS, JavaScript, CUDA, Git

Frameworks: PyTorch, Tensorflow, Keras, OpenCV, NumPy, ROS, ROS2, IsaacLab