VAMSEE KRISHNA KELLA

Tempe, Arizona vkella@asu.edu 4807916662 in/vkella vkella.github.io

EDUCATION

Master of Science - Robotics and Autonomous Systems **Graduating May 2023**
Arizona State University, Tempe, AZ GPA **3.89/4**

Bachelor of Technology - Electrical and Electronics Engineering **Graduated June 2018**
Jawaharlal Nehru Technological University, Hyderabad, India GPA **3.8/4**

TECHNICAL SKILLS

Programming: Python and specific libraries(Pytorch, Numpy, pandas, scikit-learn, Keras), MATLAB, C, C++
Tools: Git, Linux, Docker, OpenCV, Robot Operating System (ROS), AWS, MySQL,CUDA
Hardware : NVIDIA Jetson boards, LiDAR, Camera, Range Sensors

EXPERIENCE

Research Aide | Arizona State University, Tempe AZ **Mar 2022 – Present**

- Developed and implemented 4 data visualization tools and applications to support project research and analysis as part of a research team, resulting in a 20% increase in data analysis efficiency.
- Upgraded and maintained the data tool used by educators and officials to monitor Arizona's water, resulting in a improvement in water monitoring.

Software Engineer | Accenture Private Limited, Hyderabad India **Jan 2019 – Jun 2021**

- Led the development of an interactive tool that empowered business users to automatically control regular data changes, resulting in a targeted 63 hours decrease in manual efforts.
- Created data pipeline tools to enhance data analysis accuracy and timeliness, resulting in a 25% decrease in report processing time, 90% increase in data accuracy, and 3 hours per week reduction in manual input time.
- Communicated with customers, conducted extensive research and user testing, and made scalability projections to estimate feature viability with a customer-centric vision.

COURSE PROJECTS

3D Object Detection using LiDAR and Camera Sensor Fusion **Aug 2022 – Dec 2022**

- Created and trained a deep learning model for 3D object detection using LiDAR and camera sensor fusion, resulting in improved accuracy and efficiency.
- Evaluated the performance of the 3D object detection model on the KITTI dataset, resulting in outstanding results.

Indoor 3D Reconstruct Using Mobile Robot **Mar 2022 – Apr 2022**

- Developed an indoor 3D reconstruction system using a mobile robot equipped with an Intel Realsense D435i camera and RTABMap to detect objects and approximate their location in a world frame.
- Implemented YOLO object detection algorithm to recognize objects in the 3D reconstructed environment.
- Utilized a high-performance computer to process camera data collected by the robot and stored in rosbags.

Object Detection of Craters on Mars Surface **Mar 2022 – May 2022**

- Developed a Faster R-CNN model for the detection of craters on the Martian surface using the GeoAI Martian Challenge Coco dataset.
- Trained the model on over 100,000 photos using a high-performance computing cluster and data parallelization across multiple GPUs.

ACTIVITIES

Vice President, Undergraduate Student Association, CVR College of Engineering **May 2018 – Jul 2019**

- Orchestrated the development and execution of mandatory trainings, weekly team meetings, and community service initiatives, resulting in a 5% increase in employee engagement and productivity for a team of 15 individuals.
- Managed all Electrocruise initiatives, projects, events and provided support in the recruitment and development of volunteers.