

Ketan Anand

kanand@gatech.edu • Mobile: +1 (470) 428-5032 • [GitHub](#)

Academic Qualifications

MS Electrical and Computer Engineering, Georgia Tech

Aug 2022 - May 2024

- **Interests:** Machine Learning, Computer Architecture and Robotics

GPA 4.00/4.00

Bachelor of Engineering (Hons.), M. S. Ramaiah Institute of Technology (MSRIT), India

2016 - 2020

- **Major:** Electronics and Instrumentation Engineering

GPA 9.51/10.00

Publications

- **K. Anand**, D. Gupta, and D. Joyce, "VLM-based Socially Aware Navigation", submitted to *AAAI 2024*
- **K. Anand**, and A. Kanupriya, "A Review and Evaluation of Novel Object Detection Algorithms for Autonomous Driving", *ICCCNT 2023, IIT Delhi*. DOI: <https://doi.org/10.1109/ICCCNT56998.2023.10306906>
- Murthy L.R.D, A. Mukhopadhyay, S. Aggarwal, **K. Anand**, and P. Biswas, "Towards Precision in Appearance-based Gaze Estimation in the Wild", submitted to *CVPR 2023*. Link: <https://arxiv.org/abs/2302.02353>
- Murthy L.R.D, A. Mukhopadhyay, **K. Anand**, S. Aggarwal, and P. Biswas, "PARKS-Gaze - A Precision-focused Gaze Estimation Dataset in the Wild under Extreme Head Poses", *Intelligent User Interfaces (IUI '22 Companion, Finland)*. DOI: <https://dl.acm.org/doi/abs/10.1145/3490100.3516467>
- **K. Anand**, K. Senthil, N. George, and V. Talasila, "Precision Testing of a Single Depth Camera System for Skeletal Joint Detection and Tracking", *ICTCS 2021*. DOI: https://doi.org/10.1007/978-981-19-0095-2_37

Scholastic Achievements

- College **Silver Medalist** for the graduating batch of 2020 at MSRIT (2nd out of 1600 students)
- Received the **Best Project (Machine Learning)** award for the year 2019-20 (out of 200 teams)

Work Experience

NVIDIA | Systems Software Engineering Intern | Comp Arch, Systems, ML

Jan 2024 - May 2024

- OneDiag Analyzer development for analysis of encrypted firmware errors while running massive parallel loads
- Machine learning workload developments for CUDA kernel failure isolation and architecture improvements

Apple – Platform Architecture Intern | Comp Arch, Machine Learning, SDE

May 2023 - Dec 2023

- Developed a low latency random forest algorithm to deduce most power intensive parameters
- Neural engine acceleration using clock dithering to mitigate voltage droop events for large computes

CPSec: Cyber-Physical Security Lab | Graduate Research Assistant | ML, CybSec

Jan 2023 - May 2023

- Developed network fuzzing techniques to access the MAVLink communication bridge and snoop sensor data
- TinyML implementation on companion embedded RPi on board to perform scene understanding indoors

Centre for Product Design and Manufacturing (CPDM), IISc | Human Computer Interaction

- Preprocessed data collected and MPIIGaze dataset by extracting facial landmarks with OpenFace (ICRA '19)
- Cross validated AGE-Net in an automotive environment to utilize gaze vectors as an indicator of awareness

Relevant Courses

- Computer Architecture, Hardware Acceleration for Machine Learning, Statistical Machine Learning, Linear Systems and Controls, Advanced Programming Techniques, Random Processes, Computer Vision, Introduction to Robotics, Data Structures and Algorithms

Technical Skills

- **Programming Languages:** C, C++, Python, Java, OCaml, Haskell, MATLAB, Verilog
- **Other Tools:** ARM, FPGA, NumPy, OpenCV, PyTorch, ROS, SciPy, AWS, Kubernetes, SQL, Shell, Perl