Apoorva Beedu

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• *https://apoorvabeedu.github.io/*

EDUCATION

- **Doctor of Philosophy** Expected Dec 2023
  Georgia Institute of Technology Atlanta, GA
  Research Area: Computer Vision, Object Pose Estimation, Object and activity understanding, Self Supervision, Video analysis.
  Advisor: Dr. Irfan Essa Co-advisor: Dr. Justin Romberg.

- **Bachelor of Engineering** August 2011-May 2015
  PES Institute of technology Bangalore, India
  Electrical and Electronics Engineering

RESEARCH PAPERS

- **Beedu, Apoorva**, Huda Alamri, and Irfan Essa. "Video based Object 6D Pose Estimation using Transformers." Vision Transformers: Theory and Applications workshop NeuRIPS (2022).
- Alamri, Huda and Bilic, Anthony and Hu, Michael and **Beedu, Apoorva** and Essa, Irfan. "End-to-End Multimodal Representation Learning for Video Dialog." Vision Transformers: Theory and Applications workshop NeuRIPS (2022).
- Haresamudram, H., **Beedu, A**., Agrawal, V., Grady, P.L., Essa, I., Hoffman, J. and Plötz, T., 2020, September. Masked reconstruction based self-supervision for human activity recognition. In Proceedings of the 2020 International Symposium on Wearable Computers (pp. 45-49).
- Beedu, A., Ren, Z., Agrawal, V. and Essa, I., 2021. VideoPose: Estimating 6D object pose from videos. arXiv preprint arXiv:2111.10677.
- Apoorva, J., Mohan, B., **Beedu, A**., Nayak, M. M., Rao, D., & Agrawal, V. K. (2015, July). Location based payload imaging. In Electronics, Computing and Communication Technologies (CONECCT), 2015 IEEE International Conference on (pp. 1-6). IEEE.

INTERNSHIPS

- **Facebook Reality Lab** Summer '21
  Research Intern, Oculus Lab Atlanta(remote), USA
  Advisor: Dr. Chengde Wan Dr. Robert Wang

- **Microsoft Research** Summer '20
  Research Intern Atlanta(remote), USA
  Advisor: Dr. Amol Ambardekar Dr. Harpreet Sawhney

- **NodeIn Robotics** Summer '17 and '18
  Robotics Intern Connecticut, USA
  Advisor: Dr. Suresh Kannan

PROFESSIONAL ACTIVITIES

- Reviewer for BMVC 2021-22, VTTA@NeuRIPS2022

TEACHING EXPERIENCE

- **Graduate Teaching Assistant** August 2017 - Present
  Course: OMSCS: 6476 Computer Vision Atlanta, USA

ACADEMIC PROJECTS

- **im2LaTeX** Jan 2018 - May 2018
  - Generated LaTeX markup of formulae from image inputs using VAEs
- **Visual based project for MBZIRC competition** January 2107 - March 2017
  - This project was a part of an International Robotics Challenge in Abu Dhabi, MBZIRC.
  - Challenges involved detecting the right stem valve size, detecting corresponding wrench and rotating the stem for 360°
- **Traffic Sign Classification using HOG and SVM** September 2016 - December 2016
  - This project focused on classifying traffic signs in a video using Matlab.
  - A large database for classification was created using videos created in UE 4.
  - Traffic signs were first segmented and HOG was applied on the segmented images.