

Kevin Duarte | CS PhD Student

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I am a fourth year Computer Science PhD student at the University of Central Florida. My research focuses on computer vision and deep learning.

Employment

- **Center for Research in Computer Vision** **University of Central Florida**
Graduate Research Assistant *June 2018–Present*
I am responsible for conducting computer vision and machine learning research with my advisor Dr. Mubarak Shah. My research applies capsule networks for video understanding, and I attempt to solve problems like video action detection, video object segmentation, and text-based video segmentation.
- **Department of Computer Science** **University of Central Florida**
Graduate Teaching Assistant *August 2017–May 2018*
I worked as a GTA in three courses: Computer Science 1, Robot Vision, and Design and Analysis of Algorithms. I graded assignments and occasionally assisted students with the course material.
- **Center for Research in Computer Vision** **University of Central Florida**
Research Experience for Undergraduates Mentor *June–August 2018, 2019, 2020*
I mentored four undergraduate students in a ten week REU program. We conducted research on various subjects, including: Action Detection, Video Object Segmentation, and Panoptic Segmentation.

Education

- **University of Central Florida** **Orlando, Florida**
Computer Science PhD Student *2017–Present*
- **University of Central Florida** **Orlando, Florida**
B.S. in Computer Science and B.S. in Mathematics *2013–2017*

Technical skills

- **Programming Languages and Frameworks:** Proficient in: Python, Java, C, Pytorch, Tensorflow, Keras
Also basic ability with: C#, C++, Haskell, SQL, R.

Publication(s)

- **[CVPR 2020, Oral]** McIntosh, B., **Duarte, K.**, Rawat, Y. S., Shah, M. (2020). *Visual-Textual Capsule Routing for Text-Based Video Segmentation*. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (pp. 9942-9951).
- **[ICCV 2019, Poster]** **Duarte, K.**, Rawat, Y. S., & Shah, M. (2019). *CapsuleVOS: Semi-Supervised Video Object Segmentation Using Capsule Routing*. In Proceedings of the IEEE International Conference on Computer Vision (ICCV) (pp. 8480-8489).
- **[NeurIPS 2018, Poster]** **Duarte, K.**, Rawat, Y., & Shah, M. (2018). *Videocapsulenet: A Simplified Network for Action Detection*. In Advances in Neural Information Processing Systems (NeurIPS) (pp. 7610-7619).