

AUSTIN MYERS

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EXPERIENCE

- Google DeepMind** *May 2024 - Present*
Research Engineer San Francisco, CA
- Designed video captioning methods and datasets for evaluation and training of VLMs such as Gemini, and researched consistent conditional generation in images and video.
- Google Research** *Jan. 2019 - May 2024*
Research Engineer San Francisco, CA
- Developed multimodal video-language models for fundamental research and applications to video description and temporal action detection in Google Photos and YouTube.
- Waymo** *Dec. 2016 - Jan. 2019*
Software Engineer Mountain View, CA
- Developed segmentation, object detection, and tracking algorithms to improve self driving car perception capabilities.
- Google Research, Machine Intelligence** *Jun. 2015 - Aug. 2015*
Ph.D. Software Engineering Intern Mountain View, CA
Advisor: Kevin Murphy
- Developed semantic segmentation and object detection algorithms to predict nutritional content of food in images.
- Center for Automation Research, UMIACS¹** *Jan. 2012 - Dec. 2016*
Graduate Research Assistant College Park, MD
Advisor: Dr. Yiannis Aloimonos
Co-Advisor: Dr. Cornelia Fermuller
- Developed methods to identify the functionality of object parts in RGB-D data using deep learning and segmentation algorithms.
- Goddard Space Flight Center, NASA²** *Jun. 2011 - Aug. 2011*
Research Intern Greenbelt, MD
- Advised an undergraduate intern team on a project to allow groups of interplanetary robots to map terrain using simultaneous localization and mapping (SLAM).
- Center for Automation Research, UMIACS¹** *Jun. 2010 - Jan. 2011*
Graduate Research Assistant College Park, MD
Advisor: Dr. Hanan Samet
- Developed a system and algorithms to detect image duplicates among large-scale image data dynamically collected from social media and Internet news sources.

EDUCATION

- University of Maryland, College Park** *2016*
Ph.D. in Computer Science
- University of Maryland, College Park** *2010*
B.S. in Computer Engineering

¹University of Maryland Institute for Advanced Computer Studies

²National Aeronautics and Space Administration

PUBLICATIONS

Xingyi Zhou, Anurag Arnab, Shyamal Buch, Shen Yan, **Austin Myers**, Xuehan Xiong, Arsha Nagrani, and Cordelia Schmid. *Streaming Dense Video Captioning*. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024.

David Chan, Yiming Ni, Sudheendra Vijayanarasimhan, David Ross, **Austin Myers**, and John Canny. *Distribution aware metrics for conditional natural language generation*. International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING), 2024.

David Chan, **Austin Myers**, Sudheendra Vijayanarasimhan, David Ross, and John Canny. *IC³ Image Captioning by Committee Consensus*. Empirical Methods in Natural Language Processing (EMNLP), 2023.

David Chan, **Austin Myers**, Sudheendra Vijayanarasimhan, David Ross, Bryan Seybold, and John Canny. *What's in a Caption? Dataset-Specific Linguistic Diversity and Its Effect on Visual Description Models and Metrics*. Workshop on Vision Datasets Understanding: Conference on Computer Vision and Pattern Recognition Workshop (CVPR), 2022.

Chen Sun, **Austin Myers**, Carl Vondrick, Kevin Murphy, and Cordelia Schmid. *Videobert: A joint model for video and language representation learning*. International Conference on Computer Vision (ICCV), 2019.

Austin Myers, Nick Johnston, Vivek Rathod, Anoop Korattikara, Alex Gorban, Nathan Silberman, Sergio Guadarrama, George Papandreou, Jonathan Huang, and Kevin Murphy. *Im2Calories: Towards an Automated Mobile Vision Food Diary*. International Conference on Computer Vision (ICCV), 2015.

Austin Myers, Ching L. Teo, Cornelia Fermüller, and Yiannis Aloimonos. *Affordance detection of tool parts from geometric features*. International Conference on Robotics and Automation (ICRA), 2015.

Austin Myers, Angjoo Kanazawa, Cornelia Fermüller, and Yiannis Aloimonos. *Affordance of object parts from geometric features*. RGB-D: Advanced Reasoning with Depth Cameras Workshop: Robotics Science and Systems (RSS), 2014.

Austin Myers, Angjoo Kanazawa, Cornelia Fermüller, and Yiannis Aloimonos. *Affordance of object parts from geometric features*. Vision Meets Cognition Workshop: Computer Vision and Pattern Recognition (CVPR), 2014.

Ching L. Teo, **Austin Myers**, Cornelia Fermüller, and Yiannis Aloimonos. *Embedding high-level information into low level vision: Efficient object search in clutter*. International Conference on Robotics and Automation (ICRA), 2013.

TEACHING

CMSC733: Computer Processing of Pictorial Information.	<i>Fall 2012</i>
CMSC412: Operating Systems.	<i>Fall 2011</i>
CMSC216: Introduction to Computer Systems.	<i>Fall 2011</i>
CMSC122: Introduction to Computer Programming via the Web.	<i>Spring 2011</i>

AWARDS

University of Maryland Deans List	<i>Fall 2006, Spring 2008 - Spring 2010</i>
UMCP Presidents Scholarship Award	<i>Fall 2006 - Spring 2010</i>
A. James Clark School of Engineering Scholars Award	<i>Fall 2006 - Spring 2010</i>
Maryland Distinguished Scholar Award	<i>Fall 2006 - Spring 2010</i>

TECHNICAL SKILLS

Languages (Proficient): Python, C, C++

Languages (Experienced): Java, C#, MATLAB, CUDA

Libraries and Tools: Jax, PyTorch, TensorFlow, NumPy, ROS, L^AT_EX, Emacs, bash, Linux.