

Akshay Raj Dhamija

Computer Vision & Deep Learning Researcher



akshay-raj-dhamija
.github.io



akshay.raj.dhamija
@gmail.com



github.com/
akshay-raj-dhamija



linkedin.com/in/
akshay-raj-dhamija



+1-719-425-0603



@AkshayRDhamija



vast.uccs.edu/~ad-
hamija/blog/

Experience

12/19 - 02/20 **Computer Vision Intern**

[Neon.life \(Samsung\)](#)

Worked on end-to-end deep learning framework to bring digital avatars to life including semantic labeling, human pose estimation, feature representation and rendering, model training, optimization, deployment etc. Actively contributed to the showcasing of the final product at CES2020.

06/18 - 8/18 **Computer Vision Intern**

[Misty Robotics](#)

Developed object detection algorithms for systems with limited computational power. Formulated new evaluation metrics for comparing algorithms in unconstrained scenarios.

09/15 - Today **Research Assistant**

[Vision And Security Technology Lab](#)

Working on various projects aimed at problems of image classification, object detections and face recognition. Focused on proposing solutions to improve performance both in traditional research based on closed set scenarios and real world or open set scenarios.

11/12 - 08/15 **Project Consultant**

[My Personal Health Records eXpress \(MphRx\)](#)

Balanced and performed various responsibilities such as project management, product design, requirement gathering, product delivery and market analysis as part of this dynamic healthcare startup. Restructured and launched products for various major hospitals and diagnostic chains in India and US.

Publications

Complete list @ [g](#)

Reducing Network Agnostophobia [link](#)

Akshay Raj Dhamija, Manuel Günther and Terrance E. Boult

Neural Information Processing Systems (NeurIPS) 2018 - Oral (Acceptance rate 3%)

The Overlooked Elephant of Object Detection: Open Set [link](#)

Akshay R. Dhamija, Manuel Günther, Jonathan Ventura and Terrance E. Boult

Winter Conference on Applications of Computer Vision (WACV) 2020 - (Acceptance rate 34.5%)

Improving Deep Network Robustness to Unknown Inputs with Objectosphere [link](#)

Akshay Raj Dhamija, Manuel Günther and Terrance E. Boult

Uncertainty and Robustness in Deep Visual Learning (CVPR'2019 workshop) - Oral (Acceptance rate 22.5%)

Towards a Unifying Framework for Formal Theories of Novelty [link](#)

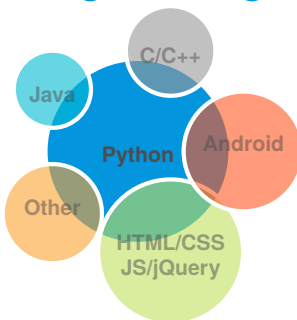
TE Boult, PA Grabowicz, DS Priyatelj, R Stern, L Holder, J Alspector, M Jafarzadeh, T Ahmad, **AR Dhamija**, C Li, S Cruz, A Shrivastava, C Vondrick, WJ Scheirer

AAAI Conference on Artificial Intelligence (AAAI 2021) - Acceptance rate 21%

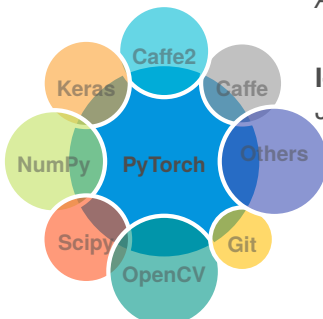
I-MOVE: Independent Moving Objects for Velocity Estimation [link](#)

Jonathan Schwan, **Akshay R. Dhamija** and Terrance E. Boult

Programming



Tools



Winter Conference on Applications of Computer Vision (WACV) 2020 - (Acceptance rate 34.5%)

Learning and the Unknown: Surveying Steps toward Open World Recognition [link](#)
Terrance E. Boulton, **Akshay Raj Dhamija**, Steve Cruz, Manuel Günther, James Henrydoss
and Walter Scheirer
Proceedings of the AAAI Conference on Artificial Intelligence - 2019 (Acceptance rate 16.5%)

Watchlist adaptation: protecting the innocent [link](#)
Manuel Günther, **Akshay Raj Dhamija** and Terrance E. Boulton
International Conference of the Biometrics Special Interest Group (BIOSIG) - 2020 (Acceptance rate 32%)

Unconstrained face detection & open-set face recognition challenge [link](#) [website](#)
M. Günther, P. Hu, C. Herrmann, C. H. Chan, M. Jiang, S. Yang, **A. R. Dhamija**, D. Ramanan, J. Beyerer, J. Kittler, M. Al Jazaery, M. I. Nouyed, G. Guo, C. Stankiewicz, and T. E. Boulton
Challenge paper at International Joint Conference on Biometrics (IJCB) 2017
vast.uccs.edu/Opensetface/

Awards

Top Scholar Award - Mountain Lion Research Day
University of Colorado
Outstanding Masters Degree Student - Computer Science
University of Colorado
Graduate Research Award
University of Colorado
Student presenter for Foundation Board of Trustee's
University of Colorado

Education

2018 - Now **PhD Student (Expected 2022) - Computer Science**
[University of Colorado, Colorado Springs](#)

2015 - 2017 **Master of Science - Computer Science**
[University of Colorado, Colorado Springs](#)

2010 - 2012 **Master of Business Administration - Software Enterprise Management**
[Guru Gobind Singh Indraprastha University, New Delhi](#)

2006 - 2010 **Bachelor of Technology - Biomedical Engineering**
[Rajasthan Technical University, Kota, Rajasthan](#)

Other Projects

VR website using A-Frame
Aimed towards experiencing basics of Virtual Reality and creating a personal virtual reality website using A-Frame. The website may be found at akshay-raj-dhamija.github.io/vr

Android application for GRE aspirants

The project was aimed at learning Android Application development and creating an application for GRE aspirants for practicing Reading Comprehensions. More than 5000 Downloads and 900 active users. [Play Store Link](#)

Robot object fetching

The project was a part of the robotics course at UCCS, where a robot equipped with a camera and a raspberry pie was used to identify a predefined cylindrical object, approach it and grip. Four ultra-sonic sensors were also used in order to localize the robot. ROS was used in the above project.

Patient monitoring system

Implementing goods codification and production reporting system at FPSI

Proposing facility layout plans for an industry in MSME segment