

Abdullah Hamdi (*Computer Vision*)

Birth:	July 5, 1993, Saudi Arabia
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Career Objective

To develop robust deep learning tools for 3D understanding and creation and to expand the access of AI to disadvantaged groups in the Arabic region . [[video link](#) , [article link](#), [TedX talk](#)]

Education

Ph.D. candidate, KAUST **2018-now**

- Computer Vision (Robustness and 3D deep learning), Electrical and Computer Engineering major under Prof Bernard Ghanem,

MS, KAUST (GPA: 4.0/4) **2016-2018**

- Computer Vision, Electrical Engineering major under Prof Bernard Ghanem.
- Thesis: "Cascading Generative Adversarial Networks for Targeted Imagination"

Exchange, Texas A&M (GPA: 4.0/4) **2014-2014**

- Earned 14 Credit hours in Texas A&M University, College Station TX.

BS, KFUPM (GPA: 3.97/4) **2011-2016**

- Electrical Engineering in KFUPM, Saudi Arabia

Experience

Internships

- **2020:** summer internship at Adobe Research (canceled last minute due to COVID)
- **2015:** Summer internship at [GE](#), Power Generation Services, Saudi Arabia.

Academic

- **2020:** Giving a seminar about my recent papers on [3D Adversarial Attacks](#)
- **2019-now:** Reviewer for +30 papers at ICCV'21, NeurIPS'21, ICLR'21, ECCV'20, CVPR'20 and ICCV'19 on topics like adversarial attacks and GANs.
- **2019:** Giving [Introduction to Deep Learning Workshop](#) to +600 attendees.
- **2019:** Teaching [Lecture on GANs](#), EE354 (Intro to Computer Vision), KAUST
- **2019:** TA for AMCS 211 (Numerical Optimization MS course), KAUST
- **2015:** Leading Best Senior Design Project, "Low cost automatic controlled drones."
- **2015:** Member in KFUPM president highest advisory student board, and chairman of student activities development committee in the board.
- **2014:** Leading a research team in "solar trackers of PV panels" granted by KFUPM.

Projects

- **2018-now:** Founder and president of [Fihm.ai](#) ([biggest Arabic online AI platform](#))

- **2017-now:** Developing deep generative models (GANs), adversarial attacks, 3D deep models and differentiable rendering using TensorFlow and Pytorch.
- **2016:** Developing visual object tracking and orientation detection vision for UAVs, participating with KAUST team that wins [MBZIRC](#) international competition.
- **2015:** Founder and president of [KFUPM Innovation Club](#) (+200 members).

Accomplishments

List of Featured Publications ([Google Scholar](#))

- [Abdullah Hamdi](#), Silvio Giancola, Bernard Ghanem, "[Voint Cloud: Multi-View Point Cloud Representation for 3D Understanding](#)", Arxiv 2021.
- [Abdullah Hamdi](#), Silvio Giancola, Bernard Ghanem, "[MVTN: Multi-View Transformation Network for 3D Shape Recognition](#)", Published at ICCV 2021.
- Salman Alsubaihi, Adel Bibi, Modar Alfadly, [Abdullah Hamdi](#), Bernard Ghanem, "[Expected Tight Bounds for Robust Deep Neural Network Training](#)", ICLRW 2021.
- [Abdullah Hamdi](#), Sara Rojas, Ali Thabet, Bernard Ghanem, "[AdvPC: Transferable Adversarial Perturbations on 3D Point Clouds](#)", Published at ECCV 2020.
- [Abdullah Hamdi](#), Matthias Müller, Bernard Ghanem, "[SADA: Semantic Adversarial Diagnostic Attacks for Autonomous Applications](#)", Published at AAAI 2020.
- [Abdullah Hamdi](#), Bernard Ghanem, "[Towards Analyzing Semantic Robustness of Deep Neural Networks](#)", Published at [ECCV 2020 Workshop on Adversarial Robustness in the Real World](#) [Best paper award] .
- MS Thesis: "[Cascading Generative Adversarial Networks for Targeted Imagination](#)".

List of Registered US Patents

- [Abdullah Hamdi](#), "[Smart dust-cleaner and cooler for solar PV panels](#)", Granted in 2018.

List of Awards

- **2021 & 2020:** Winner of [CEMSE Student Research Excellence Award](#) at KAUST.
- **2020:** Winner of the [NEOM AI Challenge](#), Entertainment track (AI-Sports team).
- **2020:** NVIDIA Best Paper Award at [ECCV 2020 AROW Workshop](#).
- **2017:** Won first place in Entrepreneurship Super Steam challenge for Saudi Universities in KAUST, \$ 8000 prize, startup idea: VR labs.
- **2014:** The first-place winner in [Nassir Bin Hamad international](#) youth creativity award in science for invention in solar dust cleaning. US Patent: US9899957B2 titled "Smart dust-cleaner and cooler for solar PV panels."
- **2014:** One of the top ten inventors in the fifth Scientific conference for higher education in Riyadh, Saudi Arabia.
- **2008:** Nominated to represent Saudi Arabia in [International Junior Science Olympiad](#) for most qualified students in the world in Changwon, Korea.

Skills

Software Skills ([GitHub Profile](#))

- Computer programming in MATLAB, Julia, C++, Python, Pytorch, TensorFlow.
- Using GPU cluster at KAUST (+800 GPUs) for large scale experiments.
- Developing VR games using Unity game engine and C# (won VR hackathon).
- Using UE4 and Blender to simulate computer vision tasks (detection and tracking).

Soft Skills

- Fluent in English and Arabic (107/120 in TOEFEL IBT).
- Public-speaking (gave a [TedX talk on AI Inequality](#) in 2021).