

Resume

Mr. Abdullah Jamal Hamdi (Computer Vision, Ph.D. student)

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Career Objectives

- To develop innovative solutions to human difficult problems based on AI tools. Specifically, I want to utilize less explored adversarial capabilities of deep learning. [[video link](#) , [article link](#)]

Education

- Perusing my **Ph.D.** in Computer Vision, Electrical Engineering major under Prof Bernard Ghanem, KAUST, Saudi Arabia.
- MS** in Computer Vision, Electrical Engineering major with GPA **4.0** (out of 4), KAUST, Saudi Arabia. Thesis titled: “Cascading Generative Adversarial Networks for Targeted Imagination” under Prof Bernard Ghanem from 2016 to 2018.
- Earned 14 Credit hours with GPA **4.0** (out of 4) in Texas A&M University, College Station TX, in a student Exchange program from August 2014 to December 2014.
- BS** in Electrical Engineering in KFUPM with 134 credit hours GPA **3.97** (out of 4) from 2011 to 2016.
- High school certificate with **100%** accumulated percentage grade in Al-Falah high school, Makkah in summer 201.

List of Papers ([Google Scholar](#))

- Abdullah Hamdi**, Matthias Müller, Bernard Ghanem, “[SADA: Semantic Adversarial Diagnostic Attacks for Autonomous Applications](#)”, Accepted at AAAI 2020.
- Abdullah Hamdi**, Sara Rojas, Ali Thabet, Bernard Ghanem, “[AdvPC: Transferable Adversarial Perturbations on 3D Point Clouds](#)”, Under submission.
- Salman Alsubaihi, Adel Bibi, Modar Alfadly, **Abdullah Hamdi**, Bernard Ghanem, “[Expected Tight Bounds for Robust Deep Neural Network Training](#)”, Under submission.
- Abdullah Hamdi**, Bernard Ghanem, “[Towards Analyzing Semantic Robustness of Deep Neural Networks](#)”, Accepted at ICCV 2019 workshop on Explaining Visual Artificial Intelligence Models [spotlight].
- Abdullah Hamdi**, Bernard Ghanem, “[IAN: Combining Generative Adversarial Networks for Imaginative Face Generation](#)”, Arxiv 2018.
- Abdullah Hamdi**, “[Cascading Generative Adversarial Networks for Targeted Imagination](#)”.[MS Thesis]
- Abdullah Hamdi**, Bernard Ghanem, “[Learning Rotation for Kernel Correlation Filter](#)”, Arxiv 2017.

List of Registered US Patents

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

Experience

Science & Engineering

- 2017-now:** Developing deep generative models (GANs), adversarial attacks, 3D deep models and differentiable rendering using TensorFlow and Pytorch for different projects

- **2017-now:** Founder and president of [Fihm.ai](#) (online Arabic AI platform with +60K visits/views).
- **2016:** Developing visual object tracking and orientation detection vision for UAVs, participating with KAUST team in [MBZIRC](#) international competition.
- **2015-2016:** Founder and president of [KFUPM Innovation Club](#) (+200 members).
- **2015:** Member in KFUPM president highest advisory student board, and chairman of student activities development committee in the board.
- **2015:** Commercial manager summer internship for [GE](#), Power Generation Services, Saudi Arabia for eight weeks.
- **2015:** Leader of Senior Design Project titled "Low cost automatic controlled drones."
- **2013-2015:** leading a research team in "solar trackers of PV panels" granted by KFUPM.

Teaching

- **2019:** [Deep Learning Workshop on TensorFlow 2.0](#), Jeddah Data Geeks, Saudi Arabia
- **2019:** [Lecture on GANs](#), EE354 (Introduction to Computer Vision), KAUST
- **2019:** [Lecture on Differentiable Rendering](#). Group Meeting, KAUST
- **2019:** TA for AMCS 211 (Numerical Optimization MS course), KAUST
- **2017:** Teaching EE311 lectures about design thinking and senior design project development and execution, KFUPM.

List of Awards

- **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: US20150311859 A1 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.
- **2007-2011:** Won in 3 national competitions in math, science, and chemistry
- **2008:** Nominated to represent Saudi Arabia in [International Junior Science Olympiad](#) for most qualified students in the world in Changwon, Korea.

Skills

General

- Speaking English and Arabic fluently. (scored 107/120 in TOEFEL IBT).
- Computer programming in MATLAB, C++, python, Pytorch, TensorFlow, C#.
- Developing VR games and computer simulations in Unity 3D and UE4.
- Ability to give speeches and crowd presentations (won several competitions).
- Critical thinking and strategic planning.
- Visionary, initiative, and team leader (started innovation club in college).
- Self-learning and fast understanding (shifting from solar to object tracking to deep learning).

Software ([GitHub Profile](#))

- Using python TensorFlow & Pytorch to develop, train, and test Deep Neural Nets.
- Using Linux based GPU cluster (300 GPUs) to train 100s of deep model.
- Developing VR games using Unity game engine and C# (paper planes game, won VR hackathon in KAUST, 2017).
- Using UE4 and Blender to simulate computer vision tasks (e.g. detection and tracking).
- Back-end game development using C++ ([AI snake game](#)).