

Resume

Mr. Abdullah Jamal Hamdi (Computer Vision, KAUST, Saudi Arabia)

Date of Birth:	July 5, 1993
Contact Information:	Mobile: +966553496385 E-Mail: abdullah.hamdi@kaust.edu.sa Website: abdullahamdi.com

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 **PhD** 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
- ❖ 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 hight school ,Makkah in summer 2011

List of Papers (Google scholar page [here](#)):

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

List of Registered US Patents:

1. [Smart dust-cleaner and cooler for solar PV panels](#) : US9899957B2

Experience

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

- ❖ **2016:** developing **visual object tracking and orientation detection** vision for UAVs, participating with KAUST team in MBZIRC international competition
 - ❖ **2015 :** commercial manager internship for GE, Power Generation Services, Saudi Arabia for the period of 8 weeks
 - ❖ **2015:** Leader of Senior Design Project titled " Low cost automatic controlled drones"
 - ❖ **2014 -2016:** leading research team in "solar trackers of PV panels" granted by KFUPM.
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List of Awards

1. **2017:** Won First place in **Entrepreneurship** Super Steam challenge for Saudi Universities in KAUST , \$ 8000 prize, leader of startup idea : VR labs
 2. **2014:** The first prize winner and best speaker in the Student Symposium in KFUPM with the proposal titled " the second summer semester"
 3. **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"
 4. **2014 April:** One of top ten **inventors** in the fifth Scientific conference for higher education in Riyadh, Saudi Arabia
 5. **2007-2011 :** won in 3 national competitions in **math, science, and chemistry**
 6. **2008 :** nominated to represent Saudi Arabia in IJSO ([International Junior Science Olympiad](#)) for most qualified students in the world in Changwon, Korea
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Skills

- ❖ 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 Skills (Github Profile [here](#)):

- ❖ 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](#))

Leaderships and Memberships:

- ❖ Founder and president of [Fihm.ai](#) (online Arabic AI platform with +60K visits/views)
- ❖ Founder and president of [KFUPM Innovation Club](#) (+200 members) from 2015 to 2016
- ❖ Member in KFUPM president highest advisory student board, and chairman of student activities development committee in the board. 2015

Teaching:

- ❖ [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 Optimzation MS course), KAUST,2019
- ❖ 3 hours teaching EE311 lectures about design thinking and about senior design project development and execution, under Dr. Mohamed Mohandes.