## **Mohamed Hassan**

Max Planck Institute for Intelligent Systems
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Education		
10/2	2017 - present	Max Planck Institute for Intelligent Systems - Germany <i>Ph.D., Computer Science</i>
09/2	2015 - 05/2017	American University of Sharjah - UAE M.S., Mechatronics Engineering, CGPA 3.87
09/2	2008 - 08/2013	University of Khartoum - Sudan <i>B.Sc., First Class (honors), Electrical &amp; Electronics Engineering</i> Ranked First in the division
Experience		
_	2021 - 12/2020	NVIDIA Toronto AI Lab, Canada Intern (virtual)
07/2	2020 - 11/2020	Creative Intelligence Lab - Adobe Research, USA <i>Intern (virtual)</i>
06/2	2016 - 09/2016	Advanced Digital Science Center of Illinois at Singapore, Singapore <i>Junior Research Assistant</i> I worked on visual SLAM with Dr. Wen-Yan Lin
09/2	2015 - 05/2017	American University of Sharjah, UAE Graduate Teaching Assistant I worked on various vision and robotics projects like: sign language recognition, gender, and facial expression recognition, and visual SLAM.
03/2	2014 -09/2015	Electro-optics Research Center, Sudan Software Engineer, I worked on implementing computer vision algorithms
09/2	2013 - 09/2014	University of Khartoum, EEE department, Sudan Teaching Assistant

### RESEARCH INTEREST

Computer vision, computer graphics, and machine learning

In a broad sense, I am interested in studying Human-Scene Interaction (HSI). I work towards developing algorithms to reconstruct, analyze, and generate these interactions. How can we jointly study the human motion and the surrounding scene? What does each one tell us about the other? This spans many areas such as: *character animation*, *3D reconstruction*, *3D learning*, human pose estimation, human motion generation, learning on graphs and generative models.

#### **Publications**

Stochastic Scene-Aware Motion Prediction, ICCV 2021.

**Mohamed Hassan**, Duygu Ceylan, Ruben Villegas, Jun Saito, Jimei Yang, Yi Zhou, and Michael Black

Populating 3D Scenes by Learning Human-Scene Interaction. CVPR 2021. **Mohamed Hassan**, Partha Ghosh, Joachim Tesch, Dimitrios Tzionas, Miachel J Black

Generating 3D People in Scenes without People - CVPR 2020 Yan Zhang, **Mohamed Hassan**, Heiko Kim Neumann, Michael J Black, Siyu Tang

Resolving 3D human pose ambiguities with 3D scene constraints - ICCV 2019 **Mohamed Hassan**, Vasileios Choutas, Dimitrios Tzionas, Michael J Black

Multiple Proposals for Continuous Arabic Sign Language Recognition - Sensing and Imaging 2019

Mohamed Hassan, Khaled Assaleh, Tamer Shanableh

User-dependent Sign Language Recognition Using Motion Detection - CSCI 2016 **Mohamed Hassan**, Khaled Assaleh, Tamer Shanableh

### Awards and Certificates

Singapore International Pre-Graduate Award (SIPGA), 2016.

Top student in Electronic and Computer Systems division, University of Khartoum, 2013.

Best graduation project, Title "Design and Implementation of Self Driving Vehicle", The Sudanese Engineering Association, 2012/2013

Award of distinction, 9th of the top one hundred students in secondary school examination, PETRONAS Sudan, 2008

## **Teaching Experience (TA)**

# **Graduate Courses**

Embedded Systems for Mechatronics, American University of Sharjah, Fall 16

Advanced Engineering Math, American University of Sharjah, Spring 16

#### **Undergraduate Courses**

Electrical Circuits I, American University of Sharjah, Spring '16

Dynamics & Control Systems Laboratory, American University of Sharjah, Fall 15, Spring 16, Fall 16, Spring 17

Computer Applications in Mechanical Engineering I, American University of Sharjah, Spring

Control Systems, American University of Sharjah Fall 15

#### Technical SKILLS

- Programming languages: Python, C#, and C++.
- Unity3D