${f Ahmed}\,\,{f Abdelreheem}$

 $+966502914097 \mid \underline{\text{personal webpage}} \mid \underline{\text{ahmed.abdelreheem@kaust.edu.sa}} \mid \underline{\text{github.com/Samir55}} \\ \underline{\text{Bldg 1, 2106-WS04, KAUST}}$

EDUCATION

King Abdullah University of Science and Technology

PhD in Computer Science, Advisor: Prof. Peter Wonka

Thuwal, Saudi Arabia May 2022 – Present

King Abdullah University of Science and Technology

MS in Computer Science, Advisor: Prof. Peter Wonka

Thuwal, Saudi Arabia March 2020 – May 2022

Remote

Stanford University
Research Internship at Guibas Laboratory under supervision of Prof. Leonidas Guibas

Jun 2021 — August 2021

Cairo University

Cairo, Egypt

BSc in Computer Engineering, GPA: 3.71/4.0, Excellent With Honor Degree

September 2015 - July 2019

Publications

• Zero-Shot 3D Shape Correspondence SIGGRAPH Asia 2023, paper link.

Ahmed Abdelreheem, Abdelrahman Eldesokey, Maks Ovsjanikov, Peter Wonka

• SATR: Zero-Shot Semantic Segmentation of 3D Shapes *ICCV 2023 (Poster)*, project link.

Ahmed Abdelreheem, Ivan Skorokhodov, Maks Ovsjanikov, Peter Wonka

• ScanEnts3D: Exploiting Phrase-to-3D-Object Correspondences for Improved Visio-Linguistic Models in 3D Scenes arXiv preprint 2022, under review, project link.

Ahmed Abdelreheem, Kyle Olszewski, Hsin-Ying Lee, Peter Wonka, Panos Achlioptas

• 3DCoMPaT: Composition of Materials on Parts of 3D Things *ECCV 2022 (Oral)*, project link.

Ujjwal Upadhyay, Yuchen Li, Habib Slim, Tezuesh Varshney, **Ahmed Abdelreheem**, Arpit Prajapati, Suhail Pothigara, Peter Wonka, Mohamed Elhoseiny

• 3DRefTransformer: Fine-Grained Object Identification in Real-World Scenes Using Natural Language WACV 2022 (Poster)

Ahmed Abdelreheem, Ujjwal Upadhyay, Ivan Skorokhodov, Rawan Al Yahya, Jun Chen, Mohamed Elhoseiny

• ReferIt3D: Neural Listeners for Fine-Grained 3D Object Identification in Real-World Scenes *ECCV 2020 (Oral)*, project link.

Panos Achlioptas, Ahmed Abdelreheem, Fei Xia, Mohamed Elhoseiny, Leonidas Guibas

EXPERIENCE

Research Intern

June 2022 – October 2022

 $Snap\ Inc.$

eJad

Valeo

Palo Alto, CA, USA

Cairo, Egypt

• Joined Snap Research as an intern at the Creative Vision team. The intern resulted in the following work: link.

Software Engineer

September 2019 – January 2020

• Worked in the new research team on the ADAS lane detection problem

Worked in the new research team on the ADAS rane detection prob
 Did research on the used road models and vision-based approaches

• Implemented an initial modular algorithm using vision-based approaches

Research Intern

February 2019 – May 2019

 $Cairo,\ Egypt$

- Worked on improving pedestrian detection using multispectral (thermal and color) image fusion
- Researched the currently used SoTA models related to the task
- Implemented the baseline experiments and ported the evaluation metric from Matlab to Python

Software Engineer Part-Time

BlueCloud Technologies

Cairo, Egypt

• Worked in the HR Interview Bot project on a task to predict the big five personality traits from an HR interview video based on scene, audio and face features

Student Developer

May 2017 – August 2017

September 2018 – January 2019

Google Summer of Code, BRL-CAD organization

Cairo, Egypt

- Added support for the 3MF file format in Slic3r software and, allowed conversions between different 3D model formats. Slic3r is an open-source G-code and toolpaths generator for 3D printers. Slic3r is written in C++11 and Perl
- Added Doxygen documentation for several classes of Slic3r code base
- Added a test suite for the added code and some features requested by the users

Workshops

Co-organizing the 3rd Workshop on Language for 3D Scenes, ICCV 2023

Co-organizing the 2nd Workshop on Language for 3D Scenes, ECCV 2022

Link

Link

AWARDS

Dean's List Award, \$2,500 award to top students by CEMSE division for their academic achievements. August 2023

KAUST Fellowship, King Abdullah University of Science and Technology Fellowship.

March 2020 – Present

 ${\bf ACM~Sigmod~Programming~Contest}~{\rm securing~the~10th~place}.$

April 2021

ACM Egyptian Collegiate Programming, securing the 80th/200 place.

October 2018

Egyptian Olympiad In Informatics, Bronze Medal.

July 2010

TECHNICAL SKILLS

Deep Learning Software Stacks: Pytorch (profecient), Tensorflow (familiar)

Programming Languages: Profecient with C++, Python, Java

Additional Skills: Familiar with CUDA

References

Peter Wonka, KAUST Professor, CS Department Relationship: Academic Advisor

email: pwonka@gmail.com

Panos Achlioptas, Snap Research

Research Scientist at The Creative Vision Lab

Relationship: Research Collaborator (co-author in recent works)

email: optas@stanford.edu