

# Amirhossein Kardoost

**Skype:** AmirhosseinKardoost

**Websites:** [LinkedIn](#), [Personal Website](#), [Google Scholar](#)

## Education

**University of Siegen**

**Ph.D. Student**, Siegen, Germany, May, 2022-Now

Dissertation submitted

**University of Mannheim**

**Ph.D. Student**, Mannheim, Germany, 2017 - May, 2022

**University of Mannheim**

**Scientific Researcher**, Mannheim, Germany, 2017 - 2021

**Saarland University**

**M.Sci., Computer Science**, Saarbrücken, Germany, 2013 - 2017

**Institute for Advanced Studies in Basic Sciences (IASBS)**

**B.Eng., Information Technology**, Zanjan, Iran, 2008 - 2012

## Research Interests

Machine Learning and Pattern Recognition

Video Object and Motion Segmentation

## Work Experience

**Software Developer**

**European XFEL**, Schenefeld, Germany, February, 2021 - Now

## Research Assistant Experience

**Estimation of Texture Orientation**

Fraunhofer Institute for Nondestructive Testing (**IZFP**)

Saarbrücken, Germany

January, 2015 - December, 2015

**Mobia Project**

German Research Center for Artificial Intelligence (**DFKI**)

Saarbrücken, Germany

January, 2014 - December, 2014

**3D Reconstruction of Visual Information**

Max-Planck-Institute for Informatics (**MPI**)

Saarbrücken, Germany

May, 2013 - February, 2014

## Theses

### Master's Thesis

Alignment of Tilt-Series by Non-Convex Optimization  
Implemented in **C++**

### Bachelor's Thesis

Machine vision - Detection and Recognition of Face with **OpenCV** Library  
Implemented in **C++**

## Publications

[1] Higher-Order Multicuts for Geometric Model Fitting and Motion Segmentation  
Evgeny Levinkov\*, **Amirhossein Kardoost**\*, Bjoern Andres, Margret Keuper  
TPAMI Journal 2022

[2] Solving Minimum Cost Lifted Multicut Problems by Node Agglomeration  
**Amirhossein Kardoost** and Margret Keuper  
ACCV 2018  
Project Website  
Code

[3] Object Segmentation Tracking from Generic Video Cues  
**Amirhossein Kardoost**, Sabine Müller, Joachim Weickert, Margret Keuper  
ICPR 2020  
YouTube Link

[4] Self-supervised Sparse to Dense Motion Segmentation  
**Amirhossein Kardoost**, Kalun Ho, Peter Ochs, Margret Keuper  
ACCV 2020  
Code

[5] Uncertainty in Minimum Cost Multicuts for Image and Motion Segmentation  
**Amirhossein Kardoost** and Margret Keuper  
UAI 2021

[6] A Two-Stage Minimum Cost Multicut Approach to Self-Supervised  
Multiple Person Tracking  
Kalun Ho, **Amirhossein Kardoost**, Franz-Josef Pfreundt, Janis Keuper,  
Margret Keuper  
ACCV 2020

[7] Optimizing Edge Detection for Image Segmentation with Multicut Penalties  
Steffen Jung, Sebastian Ziegler, **Amirhossein Kardoost**, Margret Keuper  
GCPR 2022

Paper Reviewer	CVPR 2021, 2022, 2023 ICCV 2021 AAAI 2021 BMVC 2020
Summer School	International Computer Vision Summer School ( <b>ICVSS</b> ) July, 2019, Sicily, Italy
Visiting Researcher	Max-Planck-Institute for Informatics ( <b>MPI</b> ) Computer Vision Group January, 2019 - February, 2019, Saarbrücken, Germany
Honors and Awards	<b>Rank 2 in Computer Science Department of (IASBS)</b> (Among top 10% of Class) Zanjan, Iran May, 2012  <b>50% Tuition Scholarship from Tagliatela College of Engineering</b> Boston, USA September, 2012
Computer Skills	<b>Machine Learning Libraries</b> <ul style="list-style-type: none"> <li>• PyTorch,</li> <li>• Keras,</li> <li>• TensorFlow</li> </ul> <b>Programming Languages</b> <ul style="list-style-type: none"> <li>• C,</li> <li>• C++,</li> <li>• Python,</li> <li>• C#</li> </ul> <b>Web Development</b> <ul style="list-style-type: none"> <li>• HTML, CSS, Javascript, jQuery, EJS, Node.js</li> </ul> <b>Database Management System</b> <ul style="list-style-type: none"> <li>• MySQL,</li> <li>• PostgreSQL</li> </ul> <b>Programming Libraries</b> <ul style="list-style-type: none"> <li>• OpenCV,</li> <li>• OpenGL</li> </ul>
Language Skills	English (Fluent) German (Intermediate)