# Shida Beigpour

Resumé

Lehrstuhl für Computergrafik Hölderlinstraße 3 57076 Siegen, Germany ⊠ shida.beigpour@uni-siegen.de



#### **INFO**

Born September 1985

Homepage http://www.cg.informatik.uni-siegen.de/en/shida

Linkedin http://www.linkedin.com/in/shidabeigpour

#### **CURRENT STATUS**

Affiliation Senior Research Scientist at the Chair for Computer Graphics and Multimedia Systems, University of Siegen, Germany

Topics Computer Vision, Inverse Rendering, Color Vision, Time-of-Flight imaging, Computational Photography, Multimodal Imaging and Sensor Fusion

## ACADEMIC BACKGROUND

2013 PhD. with honors<sup>1</sup> in Computer Vision, Computer Vision Center (CVC), Universitat Autònoma de Barcelona (1st in Spain)<sup>2</sup>, Bellaterra, Spain, Thesis titled: "Illumination and object reflectance modeling" - Certificate was awarded on June 21st. 2009 Master of Science in Artificial Intelligence and Computer Vision, Universitat Autònoma de Barcelona (1st in Spain)<sup>2</sup>, Bellaterra, Spain, [Projects included: Object Segmentation and Classification, Graphical Models, Bag of Words, Object Tracking and Particle Filters, 3D Reconstruction, Neural Networks, Semantic Web and Ontology, Heuristic Search, and Multi-agent Systems] - GPA 90.8% - Ranked 4th out of 28 students. 2007 Bachelor of Science in Software Engineering, Shahid Beheshti University (among top 10 in Iran)<sup>3</sup>, Tehran, Iran, [Projects included: Motion Capture using Optical Flow and Shape Matching, Database System, Semantic Web Ontology, Compliers and Programming Languages, Network and Internet Engineering, Software Design]. GPA 82.65% – Second best in Computer Engineering graduate year of 2007 (among 80 students)

Pre-university Certificate in Mathematics, Tehran, Iran, (GPA 96%).

High school Diploma of Mathematics and Physics, Tehran, Iran, (GPA 91.7%).

#### RESEARCH INTERESTS

2002

Vision Computer Vision and Pattern Recognition, Computational Photography, Dataset Acquisition and Benchmarking, Inverse Rendering and Intrinsic Image Characterization, Computational Color Constancy, Color Vision, Multispectral Imaging and Analysis, RGB-D and 3D Scene Analysis, Multimodal Imaging and Sensor Fusion, Psychophysics and Perception.

Graphics Reflectance and illumination, Global Lighting, Lightfield, Photo-realism.

- 1. Apto Cum Laude that is the maximum mark awarded for a doctoral degree in Spain (R.D. 99/2011)
- 2. By the 2012 QS World University Rankings published in topuniversities.com
- 3. According to the Iranian Ministry of Science, Research and Technology .

#### **LANGUAGES**

Self-assessment European level CEFR (C2 maximum evaluation)

		Comprehension		Speaking		Writing
		Listening	Reading	Interaction	Production	
Persian	(Farsi)	C2	C2	C2	C2	C2
English		C2	C2	C2	C2	C1
Spanish	(Castellano)	C1	C1	C1	C1	B2
German	(Deutsch)	B1	B1	A2	A2	A2

#### AWARDS AND FELLOWSHIPS

- Lise Meitner Award Fellowship: Max Planck Postdoctoral Fellowship for Excellent Women in Computer Science. Two-year fellowship grant (July 2016 July 2018)
- **Second best student** (among 80) in the Computer Engineering graduate year of 2007, Shahid Beheshti University, Tehran, Iran.

## **EXPERIENCE**

	Research
2016 2016	<sup>4</sup> Senior Research Scientist, Chair for Computer Graphics and Multimedia Systems, University of Siegen, Germany.
	[Topics: Inverse Rendering, ToF, 3D imaging, Sensor Fusion, Hyperspectral/Multimodal imaging and data analysis]
2013	<b>Associate Professor</b> , <i>Norwegian Colour and Visual Computing Laboratory</i> , Faculty of Computer Science and Media Technology, Gjovik University College (Høgskolen i Gjøvik - now Norwegian University of Science and Technology), Norway.  [Topics: Color Vision, Psychophysics, Gamification for Scientific Study]
2008	<b>PhD student / research assistance</b> , <i>Computer Vision Center (CVC)</i> , Technical School of Engineering (ETSE), Universitat Autònoma de Barcelona, Bellaterra, Spain.  Under the supervision of Dr. Joost van de Weijer. [Topics included: Eye-tracking, Multi-colored Illuminant Detection and Correction using Object Reflectance and Graphical Models, Color Constancy, Dataset Acquisition and Benchmarking, and Physics-based Object Recoloring.]
2011	<b>Visiting Researcher</b> , <i>Pattern Recognition Lab</i> , Friedrich-Alexander University Erlangen-Nuremberg, Germany, Under the supervision of Dr. Elli Angelopoulou. [Topics: Non-uniform Illumination and Color Constancy methods, Automatic White Balance, and Graphical Models.]
	Teaching Tea
2013	Web Design, Faculty of Computer Science and Media Technology, Gjovik University College

Web Design, Faculty of Computer Science and Media Technology, Gjovik University College (Høgskolen i Gjøvik - now Norwegian University of Science and Technology), Gjovik, Norway. [Topics: HTML5, CSS3, basics of JavaScript]

Artificial Intelligence, Technical School of Engineering (ETSE), Universitat Autònoma de Barcelona, Bellaterra, Spain.
[Topics included: Color Naming, Heuristic Search, Bayesian network, Classification and SVM]

Computer Programming, Tehran, Iran.
[Topics: Pascal, C++, and Algorithms]

Multimedia Design, Tehran, Iran.

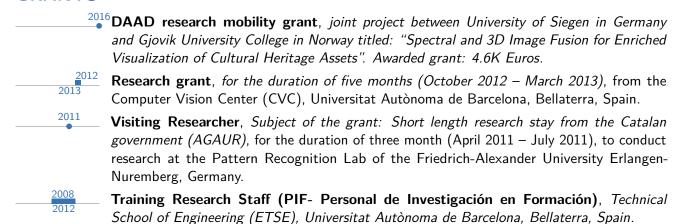
[Topics: Adobe Flash, Photoshop, and Illustrator]

2008

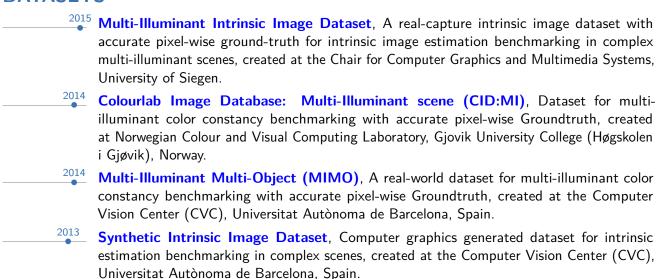
<u>200</u>5

2008

#### **GRANTS**



## **DATASETS**



#### **COMMUNITY SERVICES**

#### Journal Reviewer

- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Cybernetics
- o IEEE Transactions on Multimedia
- Journal of Imaging Science and Technology (JIST)
- The Visual Computer journal (TVCJ)

#### PhD. Thesis Reviewer

 Dissertation of Dr. Marc Serra, Sept. 2015, Title: "Modeling, estimation and evaluation of intrinsic images considering color information", Computer Vision Center (CVC), Universitat Autònoma de Barcelona, Bellaterra, Spain.

# HIGHLIGHTED TALKS

Color Play: Gamification for Color Vision Study, Oral presentation at the AIC 2015, Color and Image, Midterm Meeting of the Association Internationale de la Couleur, on May 2015.

2014 Design and Creation of a Multi-Illuminant Scene Image Dataset, Oral presentation at the International Conference on Image and Signal Processing (ICISP), June 2014. 2013 Illumination and Object Reflectance Modeling, National ICT Australia (NICTA), Canberra Research Laboratory, Australia. September 2013. 2012 Object Recoloring based on Intrinsic Image Estimation, 7th CVC workshop on the progress of research and development (CVCR&D), Barcelona, Spain. October 2012. 2010 Photo-Realistic Color Alteration For Architecture And Design, at the Colour Research For European Advanced Technology Employment (CREATE) Conference, Gjøvik, Norway. June 2010. 2007 Vision Based Approaches for Motion Capture, Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran. July 2007. 2006 Motion Capture Systems, Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran.

## **SKILLS**

OS Mac OS X, Windows, and Linux

Programming Matlab, C#, C/C++, Pascal/Delphi, SQL, HTML5, CSS3, Javascript, Python, and XML

Multimedia Adobe Flash (Action Script 2.0), Adobe Photoshop, Adobe Illustrator, 3DsMax, and Blender.

Others Latex, Microsoft Office (PowerPoint, Word, and Excel), and Protégé (ontology editor).

## **INTERESTS**

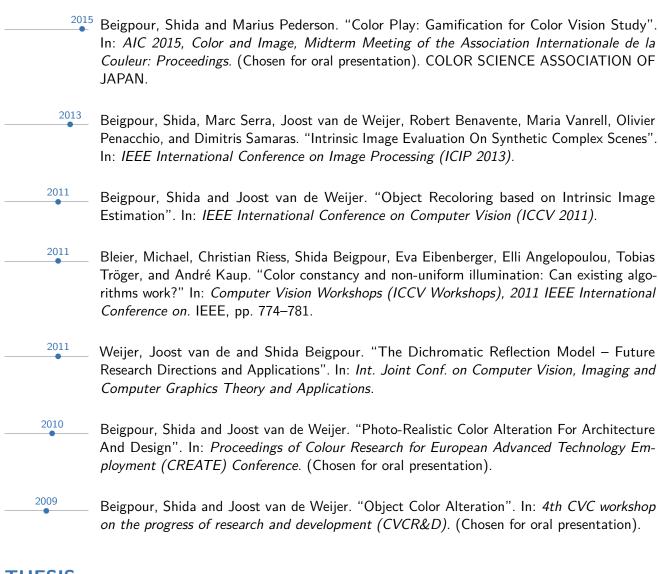
Photography, Architecture, Animation, Graphics, Languages and Literature, Hiking, Music, Traveling, and Painting.

#### **JOURNAL PUBLICATIONS**

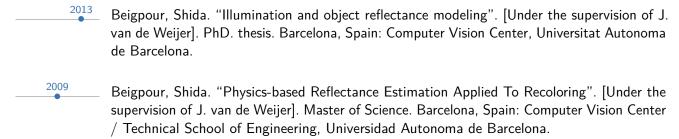
- Beigpour, Shida, Christian Riess, Joost van de Weijer, and Elli Angelopoulou. "Multi-Illuminant Estimation with Conditional Random Fields". In: *IEEE Transactions on Image Processing* (*TIP*) 23.1, pp. 83–96.
  - 2014 Khan, Fahad Shahbaz, Shida Beigpour, Joost van de Weijer, and Michael Felsberg. "Painting-91: a large scale database for computational painting categorization". In: Machine Vision and Applications.
- Ziko, Imtiaz Masud, Shida Beigpour, and Jon Yngve Hardeberg. "Design and Creation of a Multi-Illuminant Scene Image Dataset". In: *Image and Signal Processing, Lecture Notes in Computer Science* 8509. (Chosen for oral presentation), pp. 531–538.

#### **CONFERENCE PUBLICATIONS**

Beigpour, Shida, Andreas Kolb, and Sven Kunz. "A Comprehensive Multi-Illuminant Dataset for Benchmarking of Intrinsic Image Algorithms". In: Proc. IEEE International Conference on Computer Vision (ICCV 2015).



#### **THESIS**



## **REFERENCES**

# **University of Siegen**

#### Prof. Dr. Andreas Kolb

Full Professor
Head of the Computer Graphics and Multimedia Systems
Chair for Computer Graphics and Multimedia Systems
University of Siegen
Hölderlinstraße 3,
57076 Siegen, Germany

☑ andreas.kolb@uni-siegen.de

**a** +49 271 740-2404

FAX +49 271 740-3337

## Norwegian University of Science and Technology

#### Dr. Marius Pedersen

Associate Professor Director of the Norwegian Colour and Visual Computing Laboratory

The Norwegian Colour and Visual Computing Laboratory

Norwegian University of Science and Technology

Teknologivn. 22,

2815 Gjøvik, Norway

marius.pedersen@ntnu.no

**☎** +47 61 13 52 46

FAX +47 61 13 51 70

#### Prof. Dr. Jon Yngve Hardeberg

Full Professor

The Norwegian Colour and Visual Computing Laboratory

Norwegian University of Science and Technology

Teknologivn. 22,

2815 Gjøvik, Norway

⊠ jon.hardeberg@ntnu.no

**a** +47 61 13 52 15

FAX +47 61 13 51 70

## Computer Vision Center (CVC)

## Dr. Ramon Baldrich

Associate Professor
Centre de Visió per Computador
Universitat Autònoma de Barcelona
Edifici O, Campus UAB,
08193 - Bellaterra - Cerdanyola, Spain

ramon.baldrich@cvc.uab.cat

**a** +34 93 581 1828

FAX +34 93 581 1670

## Dr. Joost van de Weijer

Senior Researcher Centre de Visió per Computador Universitat Autònoma de Barcelona Edifici O, Campus UAB, 08193 - Bellaterra - Cerdanyola, Spain ☑ joost@cvc.uab.es

**a** +34 93 581 3036

FAX +34 93 581 1670

# Friedrich-Alexander University Erlangen-Nuremberg

# Dr. Elli Angelopoulou

Associate Research Professor Pattern Recognition Lab University of Erlangen-Nuremberg 2401 Lafayette Ave, Winter Park FL 32789, USA

⋈ elli.angelopoulou@gmail.com

 $\bowtie$  elli@i5.informatik.uni-erlangen.de

**☎** (407) 429-1461

Shida Beigpour University of Siegen, Germany.