

Siavash ARJOMAND BIGDELI

Date of Birth: 13th September 1986
Nationality: Iranian
Gender: Male
Marital status: Married
Contact Information: siavash.bigdeli@epfl.ch,
<http://ivrlwww.epfl.ch/~arjomand/>



Interested in: Computer Graphics and Vision, Machine learning, Image processing, and Inference

Studies:

2014 – 2018 **Ph.D.** in Computer Science, University of Bern, Bern, Switzerland.
Thesis: *Advanced restoration techniques for images and disparity maps*

2012 – 2014 **M.Sc.** in Computer Science University of Neuchâtel (BeNeFri),
Neuchâtel, Switzerland. Specialization: *Advanced information processing*

2008 – 2011 **B.Eng.** in Software Engineering, Azad University Tehran-North, Tehran,
Iran

2006 – 2008 **Associate Eng.** in Software Engineering, University of Applied Science
and Technology, Tehran, Iran

Work experience:

2018 – present **École polytechnique fédérale de Lausanne (EPFL), Lausanne, Switzerland,** Postdoctoral Researcher

2014 – 2018 **University of Bern, Bern, Switzerland,** Teaching assistant

- Master's course on Computational Photography
- Master's seminar on Computer Graphics
- Student thesis supervision

2012 – 2014 **3D Impact Media AG, Bern, Switzerland,** Software developer

- Digital refocusing on mobile devices (Master's thesis, in collaboration with Bern university, Computer Graphics Group)
- Design and implementation of automated 2D to 3D conversion.

2011(3 months) **National Geographic Organization, Iran,** Software developer

- Design and implementation of refinement methods for satellite images (Bachelor's thesis).

2006 – 2011 **Andishe Rah-e-Camal, Theran, Iran,** Computer technician

- IT support.

Publications:

- Bigdeli, Siavash Arjomand, Meiguang Jin, Paolo Favaro, and Matthias

Zwicker. "Deep Mean-Shift Priors for Image Restoration." Advances in Neural Information Processing Systems (NIPS) 2017.

- Bigdeli, Siavash Arjomand, and Matthias Zwicker. "Image Restoration using Autoencoding Priors." International Conference on Computer Vision Theory and Applications (VISAPP) 2018.
- Bigdeli, Siavash Arjomand, Gregor Budweiser, and Matthias Zwicker. "Temporally coherent disparity maps using CRFs with fast 4D filtering." Asian Conference on Pattern Recognition (ACPR), 3rd IAPR ACPR (2015), pp. 301-305. IEEE.
 - + Extended publication in IPSJ Transactions on Computer Vision and Applications 8, no. 1 (2016): 10.
- Donatsch, Daniel, Siavash Arjomand Bigdeli, Philippe Robert, and Matthias Zwicker. "Hand-held 3D light field photography and applications." The Visual Computer 30, no. 6-8 (2014): 897-907.

Educational experience:

Master's thesis: Multi-view Disparity estimation, Digital refocusing, Video stabilization, Image warping and Light field reconstruction. On the subject of *Hand-Held 3D Light Field Photography and Applications*.

Bachelor's thesis: Dehazation and stereo inpainting. On the subject of *Study of obstacle removal methods from stereo images*.

Awards:

Best student paper award for "Image Restoration using Autoencoding Priors.", VISAPP 2018.

Best Master thesis award, Joint Alumni in computer science of the Universities Bern, Fribourg, Neuchâtel (JAACS) 2014.

Software language and environment experience:

C++, Matlab, OpenCV, OpenCL, OpenGL, Caffe, Java, iOS, Android, Metro, C#, Microsoft Media Foundation

Hands-on experience:

Image restoration, Deep Neural Networks, Light fields, Convex and Stochastic optimization, Object-Oriented analysis and design, Artificial intelligence, Database, and Concurrency

Language proficiency:

Farsi: Native

English: Fluent

French: Average