Alireza Ghasemi

Avenue de l'Eglise-Anglaise 14 – 1006 Lausanne – Switzerland

 +41 (78) 677 5131 • +41 (21) 693 1371 • ✉ alireza.ghasemi@epfl.ch
 aghasemi.github.io • in ghasemialireza • a_ghasemi • aghasemi
Born 18 April 1987, Iranian citizen, Swiss B permit holder.

Education

École Polytechnique Fédérale de Lausanne	**Lausanne, Switzerland**
PhD, Computer and Communication Sciences	*September 2011 – Present*
Supervised by Professor Martin Vetterli and Dr. Adam James Scholefield	
Sharif University of Technology	**Tehran, Iran**
M.Sc., Artificial Intelligence	*September 2009 – August 2011*
Sharif University of Technology	**Tehran, Iran**
B.Sc., Software Engineering	*September 2005 – September 2009*

Selected Professional Experience

Swiss Center for Electronics and Microtechnology	**Neuchâtel, Switzerland**
R&D Intern	*October 2015 – Present*

Working on cutting-edge imaging technologies.

École Polytechnique Fédérale de Lausanne	**Lausanne, Switzerland**
Doctoral Researcher - R&D Engineer	*September 2011 – Present*

In charge for cutting-edge research in the areas of image retrieval, multi-camera systems, video analysis and image-based localization. I develop mainly in MATLAB, Java, JavaScript and Python.
- Developed a patent and a track record of publications in light-field image retrieval and video analysis.
- Participating as an R&D engineer in the development of an outdoor urban localization system.
- Developed a novel online game (using Play! and RESTful services) to exploit human computation paradigms in sentiment analysis.

DSP Lab - **Sharif University of Technology**	**Tehran, Iran**
Research Assistant	*March 2010 – August 2011*

In charge for development of an innovative image retrieval algorithm incorporating machine learning and user feedback.
- Developed a robust classification framework appropriate for massive, mostly unlabeled data.

Intelligent Information Systems (IIS) Laboratory	**Tehran, Iran**
Web Developer	*October 2009 – March 2010*

Skills

Java Development: Expert. In-depth knowledge of JavaSE, JavaFX, Swing, JDBC, Weka, etc. Working knowledge in Android development

MATLAB: Proficient in Signal and Image Processing, Computer Vision and Pattern Recognition toolboxes.

JavaScript: Experienced in Node.js, Chrome extensions, frameworks, client-side scripting, etc.

C++: Experiences with OpenCV and STL.

Python: Experiences in Blender scripting, NumPy and SciPy.

Web Development: Experiences in REST, Symfony, Spring MVC, Play!, GWT, Grails, etc.

Typesetting: Fluent in LaTeX.

Database Design: Experiences in SQL, ERD, NoSQL (MongoDB, Firebase).

Languages

Persian: Native

English: Full professional proficiency *Used extensively in study and work. C1 level.*

French: Limited working proficiency *Learning since 2012. Currently in B1 level.*

German: Limited working proficiency *Learning since 2013. Currently in A2 level.*

Selected Publications and Patents

Method and Apparatus for Identifying Local Features: *Alireza Ghasemi*; Laurent Rime; Martin Vetterli, Swiss Patent No. 2013CH-1102, Filed June 2013.

SHAPE: Linear-Time Camera Pose Estimation With Quadratic Error-Decay: *Alireza Ghasemi*; Adam Scholefield and Martin Vetterli, IEEE ICASSP 2016. Shanghai, China

On the Accuracy of Point Localisation in a Circular Camera Array: *Alireza Ghasemi*; Adam Scholefield and Martin Vetterli, IEEE International Conference on Image Processing (ICIP), 2015. *(Chosen in the top 10% papers)*

A Bayesian Approach to the Data Description Problem: *Alireza Ghasemi* et. al., AAAI Twenty-Sixth Conference on Artificial Intelligence (AAAI-12), 2012

Selected Honors and Awards

EPFL Bonus for Exceptional Performance **Lausanne, Switzerland**
Granted a bonus increase in salary due to exceptional scientific performance at EPFL. *Fall 2015*

IEEE Signal Processing Society Travel Grant **Lausanne, Switzerland**
Granted the IEEE SPS Travel Grant to attend the conference ICIP 2015. *Spring 2015*

Qualcomm Innovation Fellowship 2015 **Lausanne, Switzerland**
Winner of the prestigious Qualcomm Innovation Fellowship (QInF'15). *Spring 2015*

Doctoral Fellowship from the I&C School of EPFL **Lausanne, Switzerland**
Granted full one-year fellowship to start PhD. *Fall 2011*

Rank 1st in the Artificial Intelligence section of the Sharif University **Tehran, Iran**
Ranked by GPA. *Summer 2011*

Rank 1st in the nationwide graduate entrance exam in IT engineering **Tehran, Iran**
Among more than 13,000 students. *Summer 2009*

Interests

Reading: Literature, History, Technology. Gaining general knowledge through studying novel topics.

References

Available upon request