



# 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 • 🌐 ghasemialireza

🐦 a\_ghasemi • 🌐 aghasemi • Born 18 April 1987, Iranian citizen.

## Education

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

## Selected Professional Experience

<b>École Polytechnique Fédérale de Lausanne</b> <i>Doctoral Researcher - R&amp;D Engineer</i> 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. <ul style="list-style-type: none"><li>Developed a patent and a track record of publications in the area of light-field image retrieval and video analysis.</li><li>Participating as an R&amp;D engineer in the development of an outdoor urban localization system.</li><li>Developed a novel online game (using Play! and RESTful services) to exploit human computation paradigms in sentiment analysis.</li></ul>	<b>Lausanne, Switzerland</b> <i>September 2011 – Present</i>
<b>DSP Lab - Sharif University of Technology</b> <i>Research Assistant</i> In charge for development of innovative image retrieval algorithm incorporating machine learning and relevance feedback. I used MATLAB and Java to develop the system. <ul style="list-style-type: none"><li>Developed a robust classification framework appropriate for massive, mostly unlabeled data.</li></ul>	<b>Tehran, Iran</b> <i>March 2010 – August 2011</i>
<b>Intelligent Information Systems (IIS) Laboratory</b> <i>Web Developer</i> Database and web developer (PHP/Java) for a national-level enterprise project management system.	<b>Tehran, Iran</b> <i>October 2009 – March 2010</i>
<b>Peykasa Messageware Group</b> <i>Backend Service Developer</i> Backend developer in an integrated messaging platform. I developed in JavaEE, GWT and AJAX.	<b>Tehran, Iran</b> <i>May 2009 – October 2009</i>

## Skills

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

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

**C/C++:** Experiences with OpenCV and STL.

**Python:** Experiences in Blender scripting, NumPy and SciPy.

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

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

**Typesetting:** Fluent in  $\text{\LaTeX}$ .

**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.*

**Arabic:** Elementary proficiency

*Learned basics in high school.*

## Selected Publications

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

**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.

**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

**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