Alireza Ghasemi

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🐦 a_ghasemi   •   ⚇ aghasemi   •   Born 18 April 1987, Iranian citizen.

Education

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

Selected Professional Experience

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 the area of 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 innovative image retrieval algorithm incorporating machine learning and relevance feedback. I used MATLAB and Java to develop the system.

- Developed a novel robust one-class classification framework and added active and semi-supervised learning capability to the well-known Support Vector Data Description (SVDD) model.

Intelligent Information Systems (IIS) Laboratory **Tehran, Iran**

Web Developer *October 2009 – March 2010*

Database and web developer (PHP/Java) for a national-level enterprise project management system.

Peykasa Messageware Group   **Tehran, Iran**
Backend Service Developer   *May 2009 – October 2009*
Backend developer in an integrated messaging platform. I developed in JavaEE, GWT and AJAX.

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 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

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