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

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 Univeristy of Technology	**Tehran, Iran**
M.Sc., Artificial Intelligence	*2009–2011*

Sharif Univeristy 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	*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 a track record of publications in the area of light-field image retreval and video analysis.
- Proposed the first publicly-available dataset for light-field object recognition.
- 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	*2010–2011*

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	*2009–2010*

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