



# 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

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## Education

### École Polytechnique Fédérale de Lausanne

Lausanne, Switzerland

*PhD, Computer, Communication and Information Sciences*

2011–Present

Granted doctoral fellowship by the school of computer and communication sciences

### Sharif University of Technology

Tehran, Iran

*M.Sc., Artificial Intelligence*

2009–2011

Ranked 1<sup>st</sup> by GPA among the class of 2011

### Sharif University of Technology

Tehran, Iran

*B.Sc., Software Engineering*

2005–2009

## Experience

### École Polytechnique Fédérale de Lausanne

Lausanne, Switzerland

*Doctoral Researcher*

2011–Present

In charge for cutting-edge research in the areas of computational photography, multi-camera systems and image-based indoor localization. I develop mainly in MATLAB and Java with JavaScript for visualization and Python for scripting.

- Developed a patent regarding inventions in the area of light-field image retrieval.
- Proposed the first publicly-available dataset for light-field object recognition.
- Participated as an R&D engineer in the development of an outdoor urban localization system exploiting light-field information.

### DSP Lab - Sharif University of Technology

Tehran, Iran

*Research Assistant*

2010–2011

In charge for development of innovative approaches for exploiting user feedback to improve the underlying machine learning model in an image retrieval system. 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 Portal Developer*

2009–2010

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

**Peykasa Messageware Group***Backend Service Developer*

Developer of the Java backend in an integrated messaging platform incorporating e-mail and SMS services. Development was done in JavaEE, GWT and AJAX.

**Tehran, Iran***May 2009– October 2009***Mabna Software***Software Engineering Intern*

Participated in the development of the training dataset and implementation of novel algorithms for a statistical machine translation system for the Persian language (Pars Translator). I used Java and C# for development.

**Tehran, Iran***June 2008– September 2008*

## Skills

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**Java Development:** Expert in JavaSE, Android development, JavaFX, Weka, JavaCV,...

**C/C++:** OpenCV, STL, Boost

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

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

**JavaScript:** Experienced in Node.JS, Chrome extensions, Single-Page Application, Client-side scripting

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

**Web Development:** Experiences in Symfony, Spring, Struts2, GWT, Grails, ...

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

## Languages

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**Persian:** Native

**English:** Full professional proficiency

**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 Honors and Awards

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**Doctoral Fellowship from the I&C School of EPFL**

*Granted full one-year fellowship to start PhD.*

**Lausanne, Switzerland**

*Fall 2011*

**Rank 1st in the Artificial Intelligence section of the Sharif University**

*Ranked by GPA.*

**Tehran, Iran**

*Summer 2011*

**Rank 1st in the nationwide graduate entrance exam in IT engineering**

*Among more than 17,000 students.*

**Tehran, Iran**

*Summer 2009*

**Rank 183rd (top %0.06) in the nationwide university entrance exam**

*Among more than 300,000 students in the Mathematics branch.*

**Tehran, Iran**

*Summer 2005*

## Interests

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**Reading:** Literature, History, Technology. Gaining general knowledge through reading about different topics of interest from historical analyses to technology reviews

## References

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Available upon request