



Alireza Ghasemi

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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. Supervised by Professor Martin Vetterli and Dr. Adam James Scholefield.

Sharif University of Technology

Tehran, Iran

M.Sc., Artificial Intelligence

2009–2011

Ranked 1st 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

Tehran, Iran

Backend Service Developer

May 2009– October 2009

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

Mabna Software

Tehran, Iran

Software Engineering Intern

June 2008– September 2008

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.

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.

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

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

Python: Experiences in Blender scripting, NumPy and SciPy.

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 Honors and Awards

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 17,000 students.

Summer 2009

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

Tehran, Iran

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

Summer 2005

Interests

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

References

Available upon request