ALI GHOLAMI

Software Engineer & Computer Vision Researcher

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EDUCATION

B.Sc. in Computer Engineering
Amirkabir University of Technology (AUT)
 Dec 2016 – Dec 2018   Tehran, IR

✔ **Qualifications**
- Cumulative GPA $\sim$ 17.65 / 20
- Last 60 Units GPA $\sim$ 17. / 20
- Fully admitted to Amirkabir University of Technology due to outstanding performance at Kharazmi University of Tehran.

Diploma in Mathematics
Kamal Highschool
 Oct 2012 – July 2014

✔ **Qualifications**
- Cumulative GPA $\sim$ 19 / 20

RESEARCH INTERESTS

- Visual Question Answering
- Image Captioning
- Image Style Transfer
- Generative Models
- Bio-medical Image Analysis
- Neuroscience of Vision

RESEARCH EXPERIENCE

Machine Learning Lab
Advisor: Prof. Mohammad Rahmati
 January 2018 – Ongoing   Tehran, IR

- Analysis of formal representations of deep learning models in image style transfer.
- Exploration of *CNN* and *RNN* architectures in visual question answering and image captioning tasks.
- Design and implementation of generative models with *Tensorflow*.
- Inspection of statistical methods in face recognition.
- Acceleration of image processing algorithms with *CUDA*.

WORK EXPERIENCE

ArvanCloud
Web Developer
 Jun 2017 – Sep 2017   Tehran, IR

- Design and implementation of an administrative panel using *PHP* and *Laravel*.
- Practicing the best coding styles in *Javascript*, especially *Node.js* and *React.js*.

Fandogh
Mobile Developer
 Jun 2017 – Sep 2017   Tehran, IR

- Development of a poetry application with *React Native*.
- Design and implementation of a pure android weather forecast application.

SELECTED COURSES

Statistical Pattern Recognition	17/20
Machine Learning	19.5/20
Foundations of Data Mining	18.7/20
Algorithm Design	19.31/20
Data Structures	18.5/20
Engineering Statistics	18.5/20
Engineering Mathematics	19/20

SELECTED HONORS

 Ranked top 5
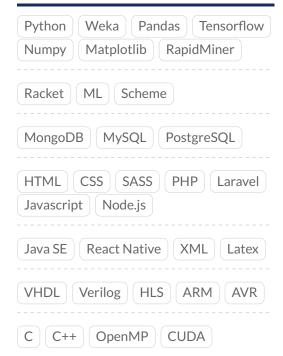among most active **GitHub** developers in Iran.

 Ranked top 0.6%
in the **nationwide** university entrance exam (approx. 250,000).

 Elected as tidiest
student at the campus of international summer school, Institute Monte Rosa, Montreux, **Switzerland**.

PROGRAMMING SKILLS

Python Weka Pandas Tensorflow

Numpy Matplotlib RapidMiner

Racket ML Scheme

MongoDB MySQL PostgreSQL

HTML CSS SASS PHP Laravel

Javascript Node.js

Java SE React Native XML Latex

VHDL Verilog HLS ARM AVR

C C++ OpenMP CUDA

LANGUAGES

Persian   ●●●●●

English   ●●●●○

- Registered to take the **TOEFL** on August 4.

TEACHING EXPERIENCE

Microprocessors and Assembly Language
Supervisor: Prof. Mohammad Mahdi Homayounpour
📅 Sep 1017 – Dec 2017   📍 Tehran, IR

Foundations of Programming
Supervisor: Prof. Azadeh Mansouri
📅 Sep 2015 – Dec 2015   📍 Tehran, IR

PUBLICATIONS

📎 Technical Reports

- Gholami, Ali (2018b). *Implementation and Optimization of Image Template Matching with CUDA*. tech. rep. 1. Multi-core programming project report. Department of Computer Engineering and Information Technology: Amirkabir University of Technology.
- Gholami, Ali (2018d). *Maximum Likelihood Approximate Nearest Neighbor Method in Real-time Image Recognition*. Tech. rep. 2. Statistical pattern recognition project report. Department of Computer Engineering and Information Technology: Amirkabir University of Technology.

✏️ Coursework Reports

- Gholami, Ali (2018a). *Dimensionality reduction strategies; Principal Component Analysis, Fisher Linear Discriminant and Feature Subset Selection*. Available at: https://goo.gl/kkajZ1.
- Gholami, Ali (2018c). *Linear Discriminant Functions, Support Vector Machine and Unsupervised Learning*. Available at: https://goo.gl/w9tojs.
- Gholami, Ali (2018e). *Non-parametric methods; Kernel Density Estimation*. Available at: https://goo.gl/j4wcjg.
- Gholami, Ali (2018f). *Visualization of classification models with RapidMiner*. Available at: https://goo.gl/eSJLaE.
- Gholami, Ali (2017a). *Analysis of Bayesian Decision Boundaries, Risk Minimization and Bayes Error Bounds*. Available at: https://goo.gl/XKz7dh.
- Gholami, Ali (2017b). *Association rule mining and feature engineering in unstructured datasets*. Available at: https://goo.gl/G8fe6E.
- Gholami, Ali (2017c). *Implementation and evaluation of Decision Tree models on Annealing dataset*. Available at: https://goo.gl/JbBDPT.
- Gholami, Ali (2017d). *Implementation and evaluation of Decision Tree models on Annealing dataset*. Available at: https://goo.gl/JbBDPT.
- Gholami, Ali (2017e). *Induction, Denotational Semantics and Lambda Calculus*. Available at: https://goo.gl/d3Jh6r.
- Gholami, Ali (2017f). *Introduction to Linear Algebra, Probability and Statistics*. Available at: https://goo.gl/uCUWDX.
- Gholami, Ali (2017g). *Lisp, Garbage Collection and Higher-order Functions*. Available at: https://goo.gl/KUEVkR.
- Gholami, Ali (2017h). *Parametric methods; Maximum Likelihood and Bayesian Parameter Estimation*. Available at: https://goo.gl/Mc9wfm.
- Gholami, Ali (2017i). *Polymorphism, Type Safety and Type Inference*. Available at: https://goo.gl/uGH48R.
- Gholami, Ali (2017j). *Types and Patterns in Algol and Meta Language*. Available at: https://goo.gl/6X3Sgy.

REFEREES

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