

# ALI GHOLAMI

## Software Engineer & Computer Vision Researcher

github.com/aligholamee  
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## EDUCATION

### B.Sc. in Computer Engineering

**Amirkabir University of Technology** (Tehran Polytechnic)

Dec 2016 – Dec 2018

Tehran, IR

#### Qualifications

- Cumulative GPA ~ 17.65 / 20 (122 Credits)
- Last 60 Units GPA ~ 17.85 / 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 ~ 19 / 20

## RESEARCH INTERESTS

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

## RESEARCH EXPERIENCE

### Tehran Polytechnic

**Freelance Researcher**

October 2017 – Ongoing

Tehran, IR

- Analyzed formal representations of deep learning models in image style transfer.
- Explored and developed CNN and RNN architectures in visual question answering and image captioning tasks.
- Inspected statistical methods in face recognition.
- Implemented and accelerated image processing algorithms with CUDA.

## WORK EXPERIENCE

### ArvanCloud

**Web Developer**

Jun 2017 – Sep 2017

Tehran, IR

- Designed and implemented an administrative panel using *PHP* and *Laravel*.
- Practiced the best coding styles in *Javascript*, especially *Node.js* and *React.js*.

### Fandogh

**Mobile Developer**

Jun 2017 – Sep 2017

Tehran, IR

- Developed a poetry application with *React Native*.
- Designed and implemented of a pure android weather forecast application.

## SELECTED COURSES

Statistical Pattern Recognition	TBA
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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