Saba Akhyani

Contact Information

Department of Computer Engineering
and Information Technology,
Amirkabir University of Technology, Tehran, Iran
http://ceit.aut.ac.ir/ akhyani

+98 930 440 1036
saba.ak95@gmail.com
saba.ak95@aut.ac.ir

Research Interests

- Computer Vision
- Object Recognition
- Affective Computing
- 3D Object Detection
- Virtual Reality and Motion Tracking
- Human-computer Interaction

Education

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran
(Ranked 85th in Computer Science [U.S. News])
B.Sc., Computer Engineering, *Sept. 2013 -Fall 2017*
-Cumulative GPA of Last 60 credits: **18.13**/20 (**3.6**/4)
-Selected courses GPA [1]: **18.77**/20 (**3.9**/4)

Kherad High School, Tehran, Iran
High School Diploma in Mathematics and Physics,
September 2010- September 2013
- Cumulative GPA: 19.60/20

Honors and awards

- Ranked top **0.5%** among all applicants for the University Entrance Nationwide Exam (Approximately 250000 applicants)
- Ranked in the top **5% to 10%** among about 100 students of Computer Engineering and IT Department, Amirkabir University of Technology
- Admission to **Graduate Program (M.Sc.)** at the Computer Engineering and IT Department, Amirkabir University of Technology, without taking the National Entrance Exam for Graduate Schools as a reward of achieving high GPA among Computer Engineering Students Entered 2013.

Teaching Experience

- **Teaching Assistant, Amirkabir University of Technology**
  - **Data Structures and Algorithms** *Fall 2016*
    Instructor: Professor Mehdi Dehghan TakhtFooladi
  - **Fundamentals of Programming Language** *Spring 2017*
    Instructor: Professor Ehsan Nazerfard
  - **Fundamental of Programming Language** *Fall 2017*
    Instructor: Professor Saeed Shiry Ghidary
  - **Research method and Report Writing** *Fall 2017*
    Instructor: Professor Reza Safabakhsh
  - **Electrical Circuits** *Fall 2017*
    Instructor: Professor Mahmoud Momtazpour

Working Experience

- **Developer, Dotin Company** *Summer 2016- Now*
  Implementation and Design of an Internal Portal for Employees
  Using MySQL, PHP, JavaScript, AJAX

[1] Artificial Intelligence (20), Multimedia Systems(20), Data Structures and Algorithms (18.3), Foundations of Data Mining (20), Principles of Database Design (20), Internet Engineering (19.25), Advanced Computer Programming (17.5), Principles of Computer Programming (15.25), Research Method and Report Writing (19), Electrical Circuits (20), Electronic Circuits(19.09), Signals and Systems(17)

Related Courses and Experiences

- **Machine Learning Online Course at Stanford University** *Summer 2015*
  Instructed by Andrew Ng, Including Supervised and Unsupervised Machine Learning Algorithms

- **VR App Development Online Program at UC San Diego** *Sept. 2016-Now*
  A Program Including 3 courses: How Virtual Reality Works, Computer Graphics and Creating VR apps

- **Shape Recognition and Movement Tracking** *Summer 2016*
  Object Recognition and Movement tracking in a .mov animation file using Deep Learning (Java, Deeplearning4j, Classification)

- **Victim Detection and 3D Pose Estimation from 2D Images for a Rescue Robot** *In Progress*
  Implementation of a Victim Detection and 3D pose estimation System using Object Detection Methods and CNN Algorithms

Technical Reports

- **A Survey on Virtual Reality Uses in Health care**
  VR uses in Mental Disorder Treatments such as Phobias, Technical report for Research Method and Report Writings Course

Selected Academic Projects

- **Web Development**
  Implementation of a Gaming Website Including Chess and Sudoku using JQuery
  Implementation of a Simple Gmail Using HTML, CSS, JavaScript, PHP, MySQL

- **Data Mining**
  Titanic Passengers Survival Prediction: Comparing Different Preprocessing Techniques and Algorithms on Titanic's Passengers Dataset, Using Decision Tree, Random Forest
  House Pricing Prediction Using Lasso, Gradient Boosting
  Fraud Detection on Banking Transaction Data Using Random Forest, Neural Network, SVM, Logistic Regression

- **Principles of Database Design**
  Implementation of a Taxi Reservation System Using MySQL, JavaScript, AJAX, PHP

- **Data Structures**
  Implementation of Huffman Coding Data Compression using MFC (using bst and decision tree to achieve the closest answer)

- **Advanced Computer Programming**
  Implementation of a Graphical Multi-player Maze with Obstacles Using Java
  Implementation of Bubble Screensaver using Java and Multithreading
  Implementation of Tank Game, a game with multiplayer support using Java

- **Principles of Computer Programming**
  Implementation of Police and the thief game using C
  Implementation of a Simple System For Registering Students at University Using C

Technical Skills

- **Programming and Scripting Languages**
  C, C++, Python, Java, Verilog
- **Database Management Systems**
  Microsoft SQL Server, MySQL
- **Web Development**
  HTML5, CSS3, JavaScript, PHP, jQuery, XSLT, XML, AJAX
- **Softwares**
  Adobe Photoshop, Opengl
  Microsoft Visual Studio, NetBeans, IntelliJ Idea, PHPStorm, Pycharm
  WEKA, RapidMiner
  ModelSim, Xilinx ISE, Orcad PSpice, Proteus
  Microsoft Word, Microsoft Excel, Microsoft PowerPoint

Language Skills

- **English:** Full Working Proficiency

  TOEFL iBT Score: **108**/120

  – Reading: **28**/30 – Listening: **29**/30
  – Speaking: **24**/30 – Writing: **27**/30

- **Persian:** Native

Hobbies

- Swimming & Cycling
- Singing and Playing Piano