

Payam Nikdel

Autonomy Lab
Simon Fraser University
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Education

- **Simon Fraser University (SFU)** Burnaby, Canada
M.Sc. Computing Science Sep 2016 - Present time
 - Thesis (M.Sc.) in computing science (Robotic, Artificial Intelligence)
 - GPA: 4.33/4.33; Expected Graduation: May 2018
- **Shiraz university** Shiraz, Iran
B.Sc. Computer Engineering (Software engineering) Sep 2010 - Feb 2015
 - GPA: 17.82/20; Achieved the highest GPA among all B.Sc students

Work Experience

- **System Developer** Tehran, Iran
Petro Gas Jahan Engineering company May. 2015 - Jun. 2016
 - Improved the company network performance tools and contributed to develop software
- **Android Application and Web Development** Tehran, Iran
Cafebazaar (a famous reputable App store in Iran) Apr. 2012 - Sep. 2012
 - Participated in creating the [Divar Android application](#) and the [Divar website](#) using Django
- **Translator Software** Tehran, Iran
Text processing Lab at University of Tehran Sep. 2011 - Jan. 2012
 - Participated in making an English to Persian translator using C++ language

Awards, Grants & Honours

Graduate

Fellowship and RA/TA position from The Simon Fraser University 2016
RA/TA position from The University of Alberta 2016
Fellowship and RA/TA position from The University of Victoria 2016

Undergraduate

Ranked 1st in Computer Engineering students 2014
Awarded as the Best Undergraduate Student in Computer Engineering 2014
Ranked 18th in Iranian National Computer Olympiad for university students. 2014
Ranked 4th in Kashan ACM competition among all national universities. 2011

Research and Academic Projects

- **Reinforcing a Supervised Deep Network for Maximal Map Exploration** Spring 2017
Dr. Oliver Schulte and Dr. Richard Vaughan
Presented a new approach to reduce the training time in Reinforcement Learning algorithm. Built a hybrid network trained by a supervised algorithm to learn preliminary tasks, like obstacle avoidance, and then used Deep Reinforcement Learning to learn maximal map exploration.

- **Daydream Ant Algorithm** Fall 2016
Dr. Richard Vaughan
Presented a new approach based on SO-LOST algorithm by adding a thinking part. Daydream algorithm will reduce the path-finding time and it will guarantee to find an optimal path.
- **Person Re-identification Using Point-cloud images** Fall 2016
Dr. Greg Mori
Enhanced and compared several deep-learning approaches for identifying people using 3D point cloud data.
- **Control the mouse cursor with eyes or hands** Fall 2014
Dr. Zohreh Azimifar
Built two application using OpenCV to control the mouse pointer by tracking the user's eyes or hand (two separate applications).
- **3D Multiplayer Game With AI** Spring 2014
Dr. Farshad Khunjush
Developed a first person shooter online multiplayer game using Unity game engine with the capability of over 100 simultaneous players and created a simple AI for enemies in the single player mode.
- **Making two player 3D game in DirectX** Fall 2013
Dr. Reza Rohani
Created a simple two player shooter game using DirectX.
- **GPU Efficient Image Processing** Fall 2013
Dr. Farshad Khunjush
Utilized GPU to apply filters on high resolution images on CUDA platform.

Technical Skills

- **Programming Languages:**
 - Python
 - C
 - Java
 - C++
 - C#
 - HTML
 - CSS
 - JavaScript
 - SQL
- **Programming Platforms & Framework:**
 - Keras
 - TensorFlow
 - ROS
 - STAGE
 - OPENCV
 - OPENCL
 - Unity
 - GIT
 - Android
 - CUDA
 - J2EE
 - DJANGO
 - LATEX
- **Operating System:**
 - Windows
 - Linux

Selected Teaching Experiences

- **Computing Laboratory** Simon Fraser University
Teaching Assistant to Dr. Richard Vaughan Fall 2016
- **Intro.Cmpt.Sci/Programming II** Simon Fraser University
Teaching Assistant to Dr. Bobby Chan Fall 2016
- **Digital Design** Shiraz university
Head Teaching Assistant to Dr. Farshad Khunjush Fall 2014 & Spring 2014
- **Artificial Intelligence** Shiraz university
Teaching Assistant to Dr. Zohreh Azimifar Spring 2014 & Fall 2013
- **Advanced Programming** Shiraz university
Teaching Assistant to Dr. Ali Hamze Fall 2013
- **Data Structures And Algorithms** University of Tehran
Teaching Assistant to Dr. Hesham Faili Spring 2013
- **Fundamentals of Computer Programming** University of Tehran
Project Manager to Dr. Hashemi and Dr. Hadi Moradi Fall 2012