

Curriculum Vitae

PERSONAL DATA

First Name: Hamid
Date of Birth: 21 Sep 1985

Last Name: Cheraghi
Nationality: Iranian

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EDUCATION

Dates (from-to): 2016 – 2019

Title of qualification awarded: Master in Computer Science and Engineering.

Name and type of organization providing education and training: Software Engineering (SE) lab, College of Engineering, Division of Electronics and Information Engineering Department (Computer Science), Chonbuk National University, Jeonju, Korea.

Principal subjects covered: Deep Learning Based Object Recognition, Composite Sketch Identification, Face Sketch Synthesis and Recognition, Pedestrian Recognition and Attribute Identification, 3D Modeling.

Thesis Title: Composite Sketch Identification Based on Deep Neural Networks

Dates (from-to): 2011 - 2014

Title of qualification awarded: B.S. Computer Software Engineering

Name and type of organization providing education and training: Islamic Azad University, Marvdasht Branch, Fars, Iran

Principal subjects covered: Differential Equations, Algorithm Design, Engineering Mathematics, System Programming, Logical Circuits, Artificial Intelligence, Web Page Design, Internet Engineering, Computer Architecture, Engineering Statistic and Probabilities, Machine Language (Assembly) and etc.

Dates (from-to): 2009 - 2011

Title of qualification awarded: A.S. Computer Software

Name and type of organization providing education and training: Department of Computer Engineering, Pasargad Higher Education Institute in Shiraz, Shiraz, Iran

Principal subjects covered: Computer Programming, Physical Education, Computer Graphics, Mathematics, Statics and Probabilities and etc.

Academic Work Experience

Name and address of Organization: Software Engineering (SE) Lab, Chonbuk National University, South Korea <https://sites.google.com/site/jbnuselab/>

University: Chonbuk National University

Supervisor: Professor Hyo Jong Lee

PROJECTS

2018 - 2019	<p>Composite Face Sketch Identification Based on Deep Neural Networks</p> <p>Objective: Utilizing deep neural networks to identify the corresponding face photo to the given sketch.</p> <p>I was involved in a project of Composite-Sketch identification and Face recognition. I applied VGG- Face network as base model and made my network SP-Net to learn discriminative features. In the proposed SP-Net, the customized VGG-Face network is adopted as base model and is followed by two branches, namely S-Net and P-Net, for sketch and photo, respectively. The S-Net and the P-Net are able to learn discriminative features between the sketches and the photos, regardless of the appearance gap by introducing the concept of elastic learning.</p>
2016 - 2017	<p>Deep Networks for Learning Person Identity and Attributes</p> <p>Objective: Developing deep learning based algorithms using convolutional networks and a module to identify pedestrian attributes.</p> <p>Generally, in this work, we propose a part level convolutional network (PCN) with a pyramid spatial pooling (PSP) module. Consequently, the term used for the full network is PCNPSP. For improved performance, the multi-stream network learns pedestrian identity and discriminative representations using partial features and auxiliary-pyramid spatially pooled features.</p>

Name and address of Organization: Iranian Institute of Advanced Science and Technology (IRAN SSP), Iran <http://www.iranspp.com/>

Investor: Iranian Institute of advanced science and Technology (IRAN SSP), Iran

Colleague: University of Putra Malaysia (UPM), Malaysia

Supervisor: Dr. Nasri. B. Sulaiman (UPM)

Advisor and team leader: Dr. Farzin Piltan (IRAN SSP)

2013- 2016 | **Nonlinear control of Industrial Robot Manipulator for Experimental Research**

Objective: Designing robust linear and non-linear controllers to control the robot arm in Matlab

We targeted developing linear and non-linear controllers to control the robot arm with high accuracy. I was involved in different projects of “Design high precision and fast dynamic controller for a multi degrees of freedom actuator” for Experimental Research and Education. I also participated in a project of “Investigating of Full Digital Control for Nonlinear Systems (e.g., Industrial Robot Manipulator, IC Engine, Continuum Robot, and Spherical Motor)” for Experimental Research and Education.

Industrial Work Experience

Name and address of Organization: Golsar Fars Company <http://www.golsarfars.ir>
Occupation or position held: Control Room Operator

2006 - 2016 | I dealt with controlling the kiln utilizing the linear controls and a private tool and software in order to monitor and maintain the operations of the factory kilns.

Languages

Persian: Native
English: Fluent
Turkish: Intermediate
Korean: Basic

Computer Programming Languages

Programming: Python, Deep learning programming (Tensorflow), C++, Matlab, ISE (FPGA),

Developed Networks

Deep convolutional neural network for composite sketch identification
Deep learning based model for person attribute recognition.

Publications

Journals

Hamid Cheraghi, Hyo Jong Lee “SP-Net: A Novel Framework To Identify Composite Sketch” IEEE Access 7 (2019): 131749-131757.

Hamid Cheraghi, Farzin Piltan, Nasim Sobhani, Maryam Rahmani and Farzin Matin, “A Motor Vibration Control for Robot Arm with Application to Surgical Tools”, *International Journal of Hybrid Information Technology*, 8(6): 65-78, 2015.

Maryam Rahmani, Nasim Sobhani, **Hamid Cheraghi**, Farzin Piltan and Farzin Matin, “Design Active Intelligent Multi Degrees of Freedom Joint Controller for Dental Automation” *International Journal of Hybrid Information Technology* Vol.8, No.10 (2015).

Maryam Rahmani, Farzin Piltan, Farzin Matin, **Hamid Cheraghi**, Nasim Sobhani, “Design Intelligent System Compensator to Computed Torque Control of Spherical Motor”, *International Journal of Intelligent Systems and Applications*, vol.6, no.8, pp.87-96, 2014. DOI: 10.5815/ijisa.2014.08.10 (DOAJ, DOI: 10.5815).

Farzin Matin, Farzin Piltan, **Hamid Cheraghi**, Nasim Sobhani, Maryam Rahmani, “Design Intelligent PID like Fuzzy Sliding Mode Controller for Spherical Motor”, *International Journal of Information Engineering and Electronic Business*, vol.6, no.2, pp.53-63, 2014. DOI: 10.5815/ijieeb.2014.02.07(DOAJ, DOI: 10.5815).

Nasim Sobhani, Farzin Piltan, Maryam Rahmani, Farzin Matin, **Hamid Cheraghi** and Nasri Sulaiman, “Precision Improvement Based on Intelligent Hype-Plane Computed Torque Control”, *International Journal of Artificial Intelligence and Applications for Smart Devices*, vol.2, N0.2, 2014, pp.9-22, 2014. DOI: /10.14257/ijaiasd.2014.2.2.02, (DOAJ, DOI: 10.14257).

Farzin Piltan, Maryam Rahmani, Meysam Esmaceli, Mohammad Ali Tayebi, Mahsa Piltan, **Hamid Cheraghi**, Mohammad R. Rashidian and Arzhang Khajeh, “Research on FPGA-Based Controller for Nonlinear System”, *International Journal of u- and e-Service, Science and Technology*, Vol.8, No.3 (2015), pp.11-28.

Conferences

Hamid Cheraghi, Hyo Jong Lee, “Composite Sketch and Forensic sketch Recognition using HOG Features: A Component-Based Approach” *The International Symposium on Information Technology Convergence (ISITC)*, Oct. 24th - 26th, 2018, Chonbuk National University, Korea.

Hamid Cheraghi, Seung Taek Kim, Hyo Jong Lee, “Composite Sketch Recognition Based on Facial Components” *The International Symposium on Information Technology Convergence (ISITC)*, Oct. 19nd - 21th 2017, Shijiazhuang Tiedao University, China

Hamid Cheraghi, Hyo Jong Lee, “Face Recognition Using Local Binary Patterns and K-Nearest Neighbors” *The International Convention Center (ICC)*, June. 20th - 22th, 2018, Seogwipo, Jeju Special Self-Governing Province, Korea

Hamid Cheraghi, Hyo Jong Lee, “Literature Review on Matching Composite Sketches to Facial Photographs” *The Information and Control Symposium (ICS)*, April. 21th - 23th, 2017, Chonbuk National University, Korea

Research Interests

- I took part in a 6-month online course of Deep Learning offered by Professor Andrew Ng of the Stanford University.
- I have also experience in Image Processing, Tensorflow Analytics, Keras, and Pythorch.
- Artificial Intelligence and Robotics
- Machine Learning in Object Detection
- 3D Modeling
- Behavior Analysis

Research Interests

Social Skills

Effective communication and leadership skills

Self-starter, believe in creativity

Problem solving skills

Ability to analyze and think logically

Enthusiastic team player with a drive to excel

References

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| Prof. Malrey Lee | Full Professor, Artificial Intelligence and Autonomous Robot Laboratory, Division of Computer Science and Engineering Department, Chonbuk National University, Jeonju Si, South Korea.
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| Dr. Farzin Piltan | PhD, Senior Researcher and team leader, Intelligent Systems and Robotic laboratory, Iranian Institute of Advance Science and Technology, Shiraz, Iran.
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