

Elham Ravanbakhsh

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Education

- **Ph.D. in Computer Engineering**, Louisiana State University Sep. 2019 - Current
- **M.Sc. in Artificial Intelligence and Robotics**, Shahid Chamran University of Ahvaz Apr. 2018
 - Thesis: Designing a deep learning network for detection of face images
- **B.Sc. in Computer Engineering**, Shahid Chamran University of Ahvaz Jul. 2015
 - Thesis: Designing a recommender system for breast cancer patients

Publications

1. M. Rezayi, **E. Ravanbakhsh** et al. "Assessing the effect of image quality on SSD and Faster R-CNN networks for face detection," ICEE2019, 2019
2. **E. Ravanbakhsh** et al. "Comparison between EM and FCM algorithms in skin tone extraction," 1st International Conference on Advances Research on Electrical and Computer Engineering, 2016

Experience

- Louisiana State University, Baton Rouge, LA Sep. 2019-2020
Research Assistant *Center for Computation and Technology (CCT)*
- Shahid Chamran University of Ahvaz, Iran Spring 2018
Teaching Assistant *Deep Learning*

Research Interests

- Deep Learning
- Computer Vision
- Object Detection
- Image Analysis
- Person Re-identification

Selected Projects

Deep Learning	Pose-driven deep learning models for Person re-identification, Enhancing a base Re-ID model using Instance Segmentation, Pose Estimation on Market-1501 dataset, Fall 2020
Deep Learning	Designing a CNN model for detecting potential pollinators of herbarium specimens. Exploring visualization techniques to identify floral traits that are discriminative in detection, Spring 2020
Deep Learning	Building a character-level LSTM network to generate names and classification, Fall 2019
Deep Learning	Exploring generation task by Implementing a convolutional variational auto encoder and CGAN, Spring 2019
Deep Learning	Designing a Joint face detection and gender recognition model using SSD network on the very challenging IMDB dataset, spring 2018
Machine Learning	Assessing accuracy of a Face Recognition model using Eigenface, Fisherface and Laplacianface, Fall 2016
Computer Architecture	Implementation of a simulator for an 8-stages pipeline, Spring 2020

Skills

Programming	Python, C/C++
Pythonn Libraries	PyTorch, TensorFlow, Keras, Caffe, OpenCV, Pandas, Numpy, Scipy
GPU Programming	CUDA, OpenGL, GLSL
Computer Vision	Object detection, Object tracking, Image Enhancement, Image Reconstruction, Image filtering
Miscellaneous	Git, L ^A T _E X, MATLAB, X86 and MIPS Assembly

Selected Courses

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|-------------------------|-----------------------------------|------------------------------|
| • Visual Image Analysis | • Statistical Pattern Recognition | • GPU Micro-architecture |
| • Deep Learning | • Artificial Neural Networks | • Adv. Computer Architecture |
| • Machine Learning | • GPU Programming | • Autonomous Mobile Robots |

References

Available upon request