S.M.H. Hosseini

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Education

University of Tehran — Tehran, Iran
B.Sc. in Electrical and Computer Engineering, GPA: 3.6 (17.16/20) — 2016–2021
- Thesis: "Single-view 3D Reconstruction of Surface of Revolution"

Experience

Research Assistant at NBML — Tehran, Iran
Implementing a data-driven framework for Fiber Tractography — 2020 - 2021
- Implementing a Convolutional model to estimate fODF from MRI data
- Introducing an automatic end-to-end tractography pipeline

Research Intern at Daha Tech — Tehran, Iran
Developing a wireless indoor positioning system(IPS) using Bluetooth low energy (BLE) antennas — Summer 2019
- Installation and setting up BLE antennas
- Implementing real time locating system (RTLS) using Kalman filter and Machine learning algorithms

Publications

1. S.M.H. Hosseini, M. Hassanpour, S. Masoudnia, S. Iraji, S. Raminfard, M. Nazem-Zadeh, "ConvTract: A Convolutional-based Framework for Tractohraphy," *Medical Image Analysis*, submitted.
2. S.M.H. Hosseini, S.M. Nasiri, R. Hosseini, H. Moradi, "Single-view 3D Reconstruction of Surface of Revolution," *Pattern Recognition Letters*, to be submitted.

Teaching

- **Student Teaching Assistant** at University of Tehran — Fall 2020
  Linear Control System
- **Student Teaching Assistant** at University of Tehran — Fall 2019
  Engineering Mathematics
- **Student Teaching Assistant** at University of Tehran — Fall 2020
  Industrial Control

Skills

- **Programming:** Python, Matlab, C/C++
- **M. Learning:** TensorFlow, Google Colab
- **Tools/Techs:** LaTeX, Ubuntu
- **Hardware/System Design:** AVR & ARM, Proteus, Simulink, Altuim Designer, PSpice

Languages

- **English:** Proficient - TOEFL iBT score: 108/120
- **Persian:** Native language

Projects

- **ConvTract: A Convolutional-based Framework for Tractography**
  Research Assistant (Python, 2021)
- **Movie Server**
  Advanced Programming (C++, 2019)
- **Voice Gender Classification**
  Pattern Recognition (Python, 2020)
- **Route Optimization**
  Operational Research (Python, 2019)
- **Text Generator**
  Neural Network (Python, 2020)
- **Single-view 3D Reconstruction of SOR**
  Bachelor's Thesis (Matlab, 2021)
- **Super Mario Game**
  Advanced Programming (C++, 2019)
- **Survey of Feature Selection Algorithms**
  Pattern Recognition (Python, 2020)
- **Decision Tree Classifier**
  Intelligent Systems (Python, 2019)
- **Liquid Level Control in Three Tank System**
  Linear Control Systems (Matlab, 2018)

REFRENCE

- **Prof. Reshad Hosseini** Tehran, Iran
  Assistant Professor at Electrical and Computer Engineering School, University of Tehran, Director of Computational Audio-Vision Lab
- **Prof. Mohammad-Reza Nazem-Zadeh** Tehran, Iran
  Assistant Professor at Tehran University of Medical Science, Member of Advanced Medical Technologies and Equipment Institute
- **Dr. Masoud Hassanpour** Tehran, Iran
  Researcher at the Molecular and Cellular Imaging Center, Advanced Medical Technologies and Equipment Institute (AMTEI), Tehran University of Medical Sciences
- **Prof. Manouchehr Moradi** Tehran, Iran
  Associate Professor at Electrical and Computer Engineering School, University of Tehran, Director of Advanced Robotics and Intelligent Systems Lab
- **Prof. Ahmad Kalhor** Tehran, Iran
  Associate Professor at Electrical and Computer Engineering School, University of Tehran
- **Prof. Fariba Bahrami BoodeLalou** Tehran, Iran
  Associate Professor at Electrical and Computer Engineering School, University of Tehran, Director of Human Motor Control and Computational Neuroscience Lab