



Hossein Keipour

Telecommunication Engineer

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▪ EDUCATION

- **Second M.Sc. Telecommunications Engineering** **2019 - Present**
 - Blekinge Institute of Technology (BTH), Karlskrona, Sweden
 - ✓ **Interested topics:** Cyber Security, Modern Machine Learning
 - **Supervisors:** Prof. Dragos Illie, Prof. Thiemo Voigt, and Niclas Finne
 - **Thesis at RISE Research Institute:** "Using Machine Learning Algorithms for Intrusion Detection in Low-Power IoT mesh networks"
- **First M.Sc. Telecommunication Systems Engineering** **2009 - 2014**
 - Supervisor: Prof. Ali Shahzadi, Tehran Azad University, Iran
 - Thesis: Change detection in Multi-temporal Images obtained from Synthetic Aperture Radar using Hidden Markov Random Fields
- **B.Sc. Electrical and Electronic Engineering** **2003 - 2008**
 - Supervisor: Prof. Iman Ahadi Akhlaghi, Sadjad University of Technology, Iran
 - Thesis: Design and Simulation of Low Frequency Antennas



▪ REASEARCH AND WORK EXPERIENCE

- **Project Assistant**, Siamak Khatibi's Lab at BTH University, *Karlskrona, Sweden* **2019 - Present**
 - ✓ Eye tracking application
 - ✓ Ultraviolet wave applications (Feasibility study)
- **Telecommunications Engineer**, Ashna Samane Co., Remote sensing, *Tehran, Iran* **2018 - 2019**
 - ✓ Optimizing image processing algorithms based on Machine Learning techniques
- **Telecommunications Engineer**, Iran Solar Co., *Tehran, Iran* **2012 - 2014**
 - ✓ Network maintenance and debugging
 - ✓ Technical member of quality assurance (QA) unit
 - ✓ Expertise on iDirect satellite link equipment
 - ✓ Writing technical documentations
 - ✓ Designing and implementing test scenarios for evaluate network availability
- **Teaching Assistant**, Azad University, *Tehran, Iran* **2011 - 2012**
 - ✓ MATLAB, OPNET Network Simulator
- **Research and Development assistant**, *Parstel Co, Tehran, Iran* **2010 - 2012**
 - ✓ Continuous product integration and deployment (CI/CD)
 - ✓ Product Trainer



▪ Publications and Honors

- **H. Keipour**, T. Voigt, N. Finne, S. Hazra, "Machine Learning for Intrusion Detection in IoT Mesh Networks", 17th International Conference on Ubiquitous Security (UbiSec), 2021. (Submitted)
- N. Finne, J. Eriksson, T. Voigt, G. Suci, M. Sachian, J. Ko, **H. Keipour**, "Multi-level Data Trace Generation with the Cooja Simulator", 1st DCOSS Workshop on Machine Learning for Smart Wireless Networks, 2021. (accepted)

- **H. Keipour**, A. Shahzadi, A. Lotfi, " Change detection in Multi-temporal Images obtained from Synthetic-aperture Radar using Hidden Markov Random fields ", the 7th National Electrical & Electronic Engineering Conference, Azad University of Aliabad, Iran, 2014.
 - Received **scholarship** from BTH University for excellence in courses (2020)
 - National Organizations for Development of Exceptional Talents School (**NODET-Sampad**)
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▪ Related Courses

- **Network and System Security (Score A)**
 - ✓ System Integrity Verification programming via Python
 - ✓ Installing and operating an Intrusion Detection System (IDS) using Metasploit and Snort
 - ✓ Installing and operating a VPN system (strongSwan)
 - ✓ Configuring a firewall
 - ✓ Creating and administrating digital certificate network system
 - **Advanced Networking (Score A)**
 - ✓ Advanced IP-based multimedia
 - ✓ Data center networking
 - ✓ 3/4/5G mobile networks and their components
 - ✓ Cloud networking
 - ✓ Concept of the Future Internet
 - **Simulation (Score A)**
 - ✓ Using computer-based tools and event-steered simulation to model complex systems in the fields of computer and communication systems
 - **Capacity Analysis**
 - ✓ Queueing theory and applications
 - ✓ Queueing Systems
 - **Quality of Experience in Network-based Services (Score A)**
 - ✓ Designing, conducting, and analyzing a QoE experiment
 - **Network and Service Operations**
 - ✓ Network architecture, design, and implementation
 - ✓ Using SNMP agent to evaluate service performance
 - ✓ Network automation using ansible-playbook
 - **UNIX and Linux (Score B)**
 - ✓ Apache virtual hosts
 - ✓ Script programming in bash
 - ✓ RegEx
 - **Advanced Python programming**
 - ✓ Testing software and program comprehension
 - ✓ A simplified client-server solution for file management
 - **Research Methodology (Score A)**
 - ✓ Mini-SLR on Safety of Autonomous Vehicle based on ML techniques.
 - ✓ Conducting a proposal for Lane Detection in Autonomous Vehicle based on ANFIS and Fuzzy- Logic
 - **Cybersecurity and the Internet of Things – Online Course**
 - **Data Collection and Processing with Python – Online Course**
 - **Machine Learning – Online Course**
 - **Introduction to TensorFlow for AI, ML, and DL – Online Course**
 - **Cybersecurity and the Internet of Things – Online Course**
 - **Blockchain Basics – Online Course**
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▪ Skills

Metasploit, Snort (IDS/IPS) -----	◆	◆	◆	◆	◆
NVIDIA Jetson Nano -----	◆	◆	◆	◆	◆
GStreamer -----	◆	◆	◆	◆	◆
Machine Learning (ML), Artificial Intelligence (AI)-----	◆	◆	◆	◆	◆
Python, MATLAB, R -----	◆	◆	◆	◆	◆
TensorFlow, Keras -----	◆	◆	◆	◆	◆
C, C++ -----	◆	◆	◆	◆	◆
Git -----	◆	◆	◆	◆	◆
Linux and Unix-----	◆	◆	◆	◆	◆
Ansible -----	◆	◆	◆	◆	◆
Contiki-NG, Cooja -----	◆	◆	◆	◆	◆
CCNA, OPNET, Packet tracer, Wireshark -----	◆	◆	◆	◆	◆
Team Working-----	◆	◆	◆	◆	◆
Troubleshooting, Technical Support-----	◆	◆	◆	◆	◆



▪ LANGUAGES

English: Fluent
(2019) IELTS score 7

Swedish: A2

Persian: Mother tongue



▪ REFERENCES

Professor Siamak Khatibi
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Blekinge Institute of Technology, Karlskrona, Sweden
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