

Sina Kashipazha

PERSONAL DATA

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EDUCATION

B.Sc In Computer Engineering with Concentration in Software
University of Tehran

Tehran, Iran
2012 - 2017

PROFESSIONAL EXPERIENCE

- Syntech Research Center

- [Parax Electric Car](#)

Nov 2018 - present

Lead Software Engineer, designed and implemented cloud system which:

- Receive bulk of encrypted data from cars
- Load balance received data between multiple cache container
- Use Reinforcement Learning to select next caches ????
- Show cars data to end user in real-time ????
- Use microservices architecture to implement above services

- University of Tehran

- [Computer Network Lab](#)

Jan 2017 - Jan 2019

Technical Staff, Network protocols, Router and MM-Wave Characterization

- Hands on Experience in using Router, Switch and SDN enabled equipments
- **todo** floodlight load balance here.
- **todo** put hadoop here.
- **todo** put network lab here.
- **todo** paper goes here.
- **todo** put fuzzy controller here.

- [The Institute for Research in Fundamental Sciences \(website\)](#) ????

July - Sep 2018

Technical Staff, Devise solutions and tools ????

- Designed and implemented a cloud based solution to run simulaotions remotely using Anaconda, JupyterLab and Docker
- Designed and implemented a educational modules for computer network lab course
- Designed and implemented a Markov chain, Monte Carlo, and multi-armed bandit Reinforcement Learning alghorithms

FIELD OF INTEREST

- Distributing switch flow between multiple controller in SDN networks
- File Placement in Distributed File Systems using Online Algorithms
- Task Scheduling Policies in Cluster Computing
- Load Balance Application Layer Traffic using Layer Three Switch
- Content Distribution in Vehicular Social Networks
- Cloud Orchestration

RESEARCH EXPERIENCE

- **University of Tehran**
 - **Computer Network Laboratory** Feb 2015 - Feb 2018
Advisor: [Prof. Ahmad Khonsari](#)
 - **Thesis:** Reduction of Request Response in Hadoop Framework in regard to Network
 - **Thesis:** Update SDN Switch Routing table in response to Topology Change
 - **Thesis:** Cloud Based Copmuter Network Lab
- **Publications**
 - **Social-aware Mobile Road Side Unit for Content Distribution in Vehicular Social Networks** [\[abstract\]](#)

EXTRACURRICULAR ACTIVITY

- **Teaching**
 - **Computer Network Lab** (Fall, Spring) Jan 2017 - Jan 2019
- **Teaching Assistant (Graduate)**
 - **Advanced Computer network** (Fall) EXCEPT: Fall 2017 Sep 2016 - Jan 2019
- **Teaching Assistant (Undergraduate)**
 - **Computer Network** (Fall, Spring) Jan 2016 - Jan 2019
 - **Operating System and Operating System Lab** (Fall, Spring) EXCEPT: Fall 2016 Jan 2015 - Jun 2018
 - **Design and Implementation of Compiler** (Fall), Sep 2015 - Jan 2016
 - **Formal Languages and Automata** (Fall) Sep 2014 - Jan 2015

TECHNICALS SKILLS

- **Network skills:**
 - **Expert:** Mininet, Floodlight Controller, Scapy
 - **Proficent:** Openflow protocol, SDN network
 - **Familiar:** GNS3 network simulator, Pox, MPLS, Segment Routing, Cisco switch
- **Cloud skills:**
 - **Proficent:** Docker, Docker-compose
 - **Fluent:** Hadoop
 - **Familiar:** Openstack, Ansible, Kuberneetees
- **Frameworks and tools:**
 - **Expert:** Play Framework, Maven, Git
 - **Proficent:** Hibernate, Anaconda, Jupyterlab, Python data analysis libraries: NumPy, SciPy, Pandas, Matplotlib
 - **Familiar:** Spark, Node.js, HTML5, CSS
- **Programming languages:**
 - **Expert:** Java
 - **Proficent:** Python, C, JavaScript

SELECTED PROJECTS

- **Analysis of a partially filled waveguide and waveguides discontinuity using MATLAB**
Theory of Electromagnetic course
- **Design and Simulation of an 5.17 - 5.33 VCO Colpitts oscillator and a balanced mixer at IEEE802.11a/b/g Standard using ADS in 0.18 um technology**
Communications Circuits course
- **Design and Simulation of high performance low power fully differential telescopic cascade amplifier using HSPICE and ADS in 0.18 um technology**
Electronics III course
- **Design and simulation of C-band Substrate Integrated Waveguide directional coupler Using HFSS**
Microwave Laboratory course
- **Simulation of Digital Modulation Methods (PSK, FSK, ASK, QAM) via MATLAB**
Digital Communications Laboratory course
- **Simulation of an OFDM and a MIMO System via MATLAB**
Wireless Communication course