Iman Tabrizian

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EDUCATION

AMIRKABIR UNIVERSITY
BS in Computer Engineering
2014 - 2018 (Expected) | Tehran, Iran
Cum. GPA: 18.13 / 20 or 3.78 / 4.0

RESEARCH INTERESTS

Internet of Things
Cloud Orchestration
Software Defined Networking

LINKS

Github:// **Tabrizian**
LinkedIn:// **tabrizian**
StackOverflow:// **iman**

SKILLS

PROGRAMMING
Over 5000 lines:
Java • Python • Javascript
Android • Node.js
C • C++ • VHDL • PHP
Over 1000 lines:
CSS • Assembly
Familiar:
MySQL • Verilog • MongoDB

FRAMEWORKS
ONOS • Docker • Swarm
Kaa IoT Platform
Lelylan IoT Platform •
OpenStack • Open vSwtich •
Mininet • Hapi.js • Vue.js

AWARDS

- top 10% in terms of cumalative G.P.A
- Offered direct admission to continue graduate studies
- Eliglbe to choose second major
- Ranked 1st among all entrance university students in 14th Amirkabir ACM-ICPC
- Top 0.007% in the national university entrance exam

RESEARCH & DEVELOPMENT EXPERIENCE

AUT IOT LABORARTORY | Researcher & Developer
Jan 2016 – Nov 2016 | Tehran, Iran
- Experimenting with Kaa to provide a Building Automation solution. This project used nRFs for providing connectivity for sensors and used Raspbery Pi as the gateway which connected to the internet.
- Development of an IoT platform with the ability to support logging, event triggering, scenario creation. It was based on the MQTT protocol for the reliable and bidirectional communication between IoT devices. Under supervision of **Prof. Bahador Bakhshi**

FARZAN FAN ANDISH FARDA | Researcher & Developer
Jun 2016 – Current | Tehran, Iran

- Development of a product for remote management of 250 welding robots for IKCO - leading car company in Iran. The solution that we proposed simplified the provisioning process extremely and helped them increase the number of welding robots in each production line.
- R&D for development of an IoT based assembly platform which eased the production of hard to assemble products. This platform used MQTT as the messaging broker and Node.js as the backend providing restful web services for things connecting to them.

PROJECTS

GENORCH | Python
Development of a generic orchestration platform with the ability to auto scale the infrastructure of an application based on the user defined criteria. It is written extremely modular and currently supports OpenStack It is an open source project you can view the source code: github.com/genorch/orchestration It was tested on SAVI (testbed of University of Toronto).

AN AUTO-SCALER FOR DOCKER SWARM | Go
Final year dissertion
In this project I'm supposed to provide an auto-scaler for Docker Swarm. Currently, Docker Swarm doesn't provide any automattic horizontal scaling of containers and only load balances between static number of containers. In this project I'm supposed to provide an auto-scaler for Docker Swarm which enables developers to define a criteria and an action that should be taken on this criteria to define the automattic scaling policy of their applications.

BAMBOO | Node.js
Bamboo is an IoT platform whose architecture is based on microservices. I was the architectural designer of bamboo and how components should be divided. It is using MQTT message broker for connectivity. You can findout more about it here.

LANGUAGES

English: professional working proficiency (TOEFL iBT 107)
Persian: Native proficiency

TEACHING

- Teaching Assistant 3x
- Instructor of Programming with C++ at Rouzbeh High School for 3 years.

IRAN METRO | ANDROID

A transportation application for Iran subway system. In currently has more than 20,000 active users. It was selected as the BESTS APP of THE WEEK by cafebazaar (Iranian Android Market) when it was launched.

MERGER | NODE.JS

This project was developed based on the request from the ICT of Amirkabir University of Technology. **Merger** fetches data from the different academic sources namely, elsevier, IEEE and crossref, merges this data into a unified format and converts them to appropriate database models.

EXTRA CURRICULAR ACTIVITIES

8TH LINUX FESTIVAL | VIRTUALIZATION WORKSHOP

2017 | Amirkabir University of Technology
I was the instructor about the virtualization technologies in general and how to use Docker specifically for containerization.

NODE.JS SUMMER COURSE | INSTRUCTOR

Summer 2017 | Computer Departemnt Scientific Committee
Teaching Node.js basics from the ground to web application and bot development.

7TH LINUX FESTIVAL | LINUX BASICS PRESENTER

2016 | Amirkabir University of Technology
I had a 20 minutes talk about code editing in Linux and about best practices in code editing.

PUBLICATIONS

GENORCH - A TOOL FOR LARGE-SCALE, CLOUD VENDOR NEUTRAL DEPLOYMENTS | NETSOFT 2018

This paper is still in progress and is supposed to describe what we have done in Genorch Project (more detail in the project section) to tackle with the problem of large-scale and multi-cloud deployments.

REFERENCES

BAHADOR BAKHSHI | ASSISTANCE PROFESSOR

Amirkabir University of Technology, Department of Computer Engineering and Information Technology
Email: bbakhshi@aut.ac.ir

MEHDI DEHGHAN | PROFESSOR

Amirkabir University of Technology, Department of Computer Engineering and Information Technology
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MASOUD SABAEI | ASSOCIATE PROFESSOR

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