

# Aseman Manzar, Mohammad Mohsen

## PERSONAL DETAILS

 $\begin{array}{ll} Birth & February 10, 1996 \\ Phone & +989120728374 \\ Telegram & @mohsenasm \end{array}$ 

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Resume https://www.asemanmanzar.ir/resume.pdf
Linkedin https://www.linkedin.com/in/asemanmanzar/

## **EDUCATION**

#### PhD in Computer Engineering, Software

2020-present

Sharif University of Technology Supervisor: Dr. Mohammad Izadi

#### MSc. in Computer Engineering, Software

2018-2020

Sharif University of Technology

19.15 GPA

**Project:** Big Data Application Performance Prediction and Cost-based Heterogeneous Resource

Recommendation in Cloud Supervisor: Prof. Ali Movaghar

#### BSc. in Computer Engineering, Software

2014-2018

Iran University of Science & Technology

First Rank, 18.76 GPA

Project: Mixed Performance and Power Consumption Modeling in Virtual Machine Using Coloured

Petri Nets

 $\textbf{\textit{Supervisor:}}\ Dr.\ Mohammad\ Abdollahi\ Azgomi$ 

#### Diploma, Mathematics & Physics

2010-2014

Allameh Tabatabai School

## **WORK EXPERIENCE**

#### iOS/Backend/WebApp Developer

2016-present

Hooshravan

HooshRavan was born at March 2016 and now the main focus is on "Smart Home Devices". In the market side, The products are known by Hinava brand.

#### Client/Server Developer

2014-2019

Elmogame Game Studio

Elmogame studio is a game studio founded by Iran University of Science and Technology students in 2013.

iOS Developer 2015-2016

Hamayeh RnD

Hamayeh was established in 1995, originally aiming at Automation of Control Systems and in less than 5 years of hard work and experience managed to become the major manufacturer of a wide range of different lighting systems equipment.

## **TEACHER ASSISTANT**

### Verification of Reactive Systems

Spring 2020

Prof. Ali Movaghar

Book: Principles of model checking written by C. Baier & JP. Katoen

## Principles of Computational Intelligence

Spring 2018

Dr. Naser Mozayeni

#### **Advanced Programming**

Spring 2016

Dr. Adel Torkaman Rahmani

## **Fundamental of Computer Programming**

Fall 2015

Dr. Adel Torkaman Rahmani

## SELECTED COURSES

| Advanced Programming                              | 20   |
|---|------|
| Discrete Mathematics                              | 20   |
| Data Structures                                   | 20   |
| The Theory of Formal Languages and Automata       | 20   |
| System Analysis and Design                        | 20   |
| Software Engineering                              | 19   |
| Operating Systems                                 | 19.6 |
| Artificial Intelligence and Expert Systems        | 20   |
| Computer Networks                                 | 17.7 |
| Formal Methods in Software Engineering            | 20   |
| Object-Oriented Analysis and Design               | 19.6 |
| Formal Specification and Verification of Programs | 19.0 |
| Computer System Performance Evaluation            | 19.3 |
| Theory of Distributed Systems                     | 19.7 |
| Algorithmic Game Theory                           | 19.5 |
| Semantic Web                                      | 20   |
|   |      |

## **PUBLICATION**

Big Data Application Performance Prediction and Cost-based Heterogeneous Resource Recommendation in Cloud

Writing

Mohammad-Mohsen Aseman-Manzar, Soroush Karimian-Aliabadi, Reza Entezari-Maleki and Ali Movaghar

#### Fixed-point Iterations Approach to Spark Scalable Performance Modeling and Evaluation Editing

Soroush Karimian-Aliabadi, Mohammad-Mohsen Aseman-Manzar, Reza Entezari-Maleki, Danilo Ardagna and Ali Movaghar

#### Designing a platform for analysing games' users' data and classification of essential metrics (in persian) 2017 Nov.

Mohammad-Mohsen Aseman-Manzar, Sarah Aseman-Manzar and Behrooz Minaei 1st Digital Games Research Conference (DGRC), https://civilica.com/doc/696919

## **PROJECT**

MSc. Project

2018-2020

2017-2018

Supervisor: Prof. Ali Movaghar

Project Title: Big Data Application Performance Prediction and Cost-based Heterogeneous

Resource Recommendation in Cloud

Spark Hadoop 2.x. 3.x Yarn Performance Prediction TPC-DS Benchmark

BSc. Project

Supervisor: Dr. Mohammad Abdollahi Azgomi

Project Title: Mixed Performance and Power Consumption Modeling in Virtual Machine

Using Coloured Petri Nets

| CPN-Tools | ML Language | Performance Modeling |

Power Consumption Modeling

#### **Hinava Smart Home**

2016-present

iOS/Backend/WebApp Developer

Hinava is a smart home system developed in Hooshravan company in Iran. It is one of the first and best manufacturers of smart home systems in the country. The system in Hinava smart home includes three parts; Hardware devices, Hinava cloud service, and mobile applications. The devices include a central panel which acts as a gateway to our system. other devices like sensors and actuators are connected to the central panel and through it, they connect to user's app on smartphones or tablets.

(iOS: Swift) (WebApp: React) (Backend: Docker | Docker Swarm | CockroachDB | Redis Openresty HAProxy Golang Python Kibana Elasticsearch Grafana Prometheus

#### Kalanshahr Game

2016-2020

Backend Developer

Kalanshahr is an online strategy game that each player should manage his/her city by choosing appropriate defensive strategies to avoid rubbery. Each player will build his/her own city and players are usually able to walk around the other players' cities to become aware of their status. Players are also able to watch the inner view of the building in the cities.

| Docker | PostgreSQL | Redis | Python

#### Footyard Game

2015-2017

Unity3D Developer (Physics, Gameplay, AI, etc.)

Footyard is an online football management game with online gameplay. Each player will have his/her own team and he/she is responsible for his/her team management. It is also possible to find friends and hang out with them.

[Unity3D] [C#] [RabbitMQ]

#### Gametic - A Game Analytics Tool

Gametic is an analytics tool that specialized for games. Gametic supports many analytics reports in a user-friendly web-based dashboard in two categories of user reports and financial reports. user reports such as daily active users, users retentions and sticky factor. financial report such as ARPU, LTV, Paid Rate. The major technologies we used was Golang (gin framework), Redis and MongoDB (sharded cluster) for big data handling.

Docker MongoDB (sharded cluster) Redis Nginx Golang Gin Framework Python

#### Farmuler Game

2015-2016

Unity3D Developer (Online Gameplay)

Farmuler is an online multiplayer farm game, that publishes for Android devices. Farmuler has two parts included online multiplayer and offline single player. In the offline part, 120 levels are designed and divided into 4 seasons of a year. Players should achieve each level goal at the proper time and they have to demonstrate their skill of time management and resource management to approach the aims. Players will be rewards as they get to the goals sooner.

[Unity3D] [C#] [Websocket]

## SKILL

Languages Persian (mother tongue)

ENGLISH (LIMITED WORKING PROFICIENCY)

Programming

C#, Python, Swift, Go, Java, JavaScript, SQL, C/C++ Languages

REDIS, POSTGRESQL, MONGODB, COCKROACHDB Data Stores

*Industry* 

BACKEND, iOS, GAME DEV., WEB DEV., DATABASE DESIGN Knowledges

Web

Flask, Django, Gin, React Frameworks

Other

DOCKER, GIT, UNITY3D, CPN-TOOLS Softwares