

# Seyed Mohammad Hossein Hosseini

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Department of Computer Engineering  
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## Education

- **Ferdowsi University** Mashhad  
*B.Sc. in Computer Engineering* 2018 – 2023
  - **CGPA: 19.11/20.0 — 3.93/4.0**
  - **TOEFL: 109**(reading:28, listening:28, speaking:26, writing:27)
  - Class Rank: **3rd** among 119 classmates (top 2.5% of students)

## Academic Projects

- Implementing [\[This Paper\]](#) Data Clustering Based On Key Identification in Python and use it in order to cluster Reddit comments with the help of BOW and W2V [\[Colab\]](#)
- Parallelized Genetic Algorithm using OpenMP(omp) Implemented in C++ [\[github repo\]](#)
- Parallelized Genetic Algorithm Implemented in CUDA GPU programming language [\[Colab\]](#)
- Implementing A\* IDS IDA\* BFS BDS algorithms for a gold searching game [\[github repo\]](#)
- Simulate Chess Player Using AI methods like Transposition table [\[github repo\]](#)
- Network tool implemented using pure web socket library in C which could do the following: 1-port scan 2-ping 3-traceroute 4-host discovery using arp [\[github repo\]](#)
- Regular Grammar to NFA/DFA Converter implemented in Java [\[github repo\]](#)
- Calculate the Histogram of Images Before and After applying a Gaussian Filter using different methods of processes communication (message passing, shared memory) [\[github repo\]](#)
- Multi Thread Search Engine Using Trie Tree Data Structure to Boost Speed implemented in different modes for race condition avoidance in Java [\[github repo\]](#)
- Implementing Operating System Scheduling Algorithms For Managing a Sample Restaurant (Earliest Deadline First, Rate Monotonic, The Least Laxity First) [\[github repo\]](#)

## Teaching Experience

- **Advanced Programming** Ferdowsi University  
*Teaching Assistant - Prof. NouriBaygi* Winter 2020
- **Discrete Mathematics** Ferdowsi University  
*Teaching Assistant - Prof. Ghaemi Bafghi* Fall 2019, Winter 2020

## Work Experience

- **Devops Engineer**

Skyroom Company

*Full-time- the most widely used Iranian video-conferencing platform*

*Mar. 2020-Oct. 2022*

- Setup & manage Kubernetes cluster for Skyroom Production Software
- Containerizing applications using Docker
- Linux System administration for VM(VMware) and BareMetal servers
- Setup & manage ELK (elastics monitoring stack)
- Setup & manage monitoring stacks such as Prometheus, Grafana
- Setup & maintenance Linux servers for different productions
- Git flow and CICD pipelines
- VMware - Virtualization and Tanzu for Kubernetes

## Awards & Honours

Ranked **33th** in the National Computer Olympiad among all of the computer students of Iran 2022

Ranked **280th** (top 0.5%) among 53000 participants in the universities entrance exam in Iran 2018

One of 5 chosen Members of eastern Universities attending to national Olympiad . . . . . 2022

## Notable Courses

- |   |  |
|---|--|
| – Computational Intelligence: 19.5/20.0(A+) | – Algorithm Design: 20.0/20.0(A+)      |
| – Multi-Core Programming: 19.05/20.0(A+)    | – Advanced Programming: 19.83/20.0(A+) |
| – Compiler Design: 20.0/20.0(A+)            | – Software Engineering: 19.80/20.0(A+) |
| – Artificial Intelligence: 20.0/20.0(A+)    | – Linear Algebra: 19.0/20.0(A+)        |

## Technical Skills

- Operating Systems
  - ROS (Robot Operating System), Linux, Windows
- Programming Languages
  - C, Java, Python, Bash, SQL, Javascript
- Markup Languages
  - L<sup>A</sup>T<sub>E</sub>X, CSS, (X)HTML
- Tools & Software
  - Kubernetes, Docker, Gitlabci, Ansible, JMeter, Nginx, HAProxy, Prometheus, loki
  - Linux System Administration, Prolog
  - ELK, EFK stack(Elasticsearch, Logstash, Kibana, Fluentd), Modelsim(Verilog)

## Professional Membership

- One of 5 head members of the computer engineering association elected by all students votes: *April 2019 – April 2020*