

CONTACT  
INFORMATION

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RESEARCH  
INTERESTS

- ◇ Virtualization
- ◇ Cloud Computing
- ◇ Operating Systems
- ◇ Computer Networks
- ◇ High speed Networks
- ◇ System communications

## EDUCATION

[Amirkabir University of Technology \(Tehran Polytechnic\)](#), Tehran, Iran  
B.Sc., [Computer Engineering](#), 2019 - 2023  
(Rank 3 among all Iranian Universities)

- Grade Point Average:  
18.29 / 20 ( $\approx 3.86 / 4$ )
- Undergraduate Project Advisor: [Prof. Babak Sadeghian](#)
- Undergraduate Project: Implementing an automated penetration testing system for cloud-based applications, especially Software as a Service applications

[Shahid Hashemi Nejjad School \(Sampad\)](#), Mashhad, Iran  
Diploma, Math and Physics, 2016 - 2019

- Grade Point Average:  
19.60/20

## PUBLICATIONS

## Academic Publications

1. B Sadeghian, A Najafizadeh, A Delkhosh, S Khorsandi  
**"PTaaS: Automated penetration testing system"**, in progress, ResearchGate
2. SA Javadi, A Najafizadeh  
**"QJUMP over Golang channels"**, published, ResearchGate
3. A Najafizadeh, A Delkhosh  
**"Bufferoverflow Attack: hack computer memory"**, published, ResearchGate
4. A Najafizadeh  
**"NATS Jetstream mirroring"**, published, [golangexample.com](https://golangexample.com)

## Notable Coursework &amp; Technical Reports

1. A Najafizadeh, M Sabaei, Gh Ashofteh "Computer Networks Lab Manual" - lab manual for computer networks course, Amirkabir University of Technology
2. A Najafizadeh, SA Javadi "Virtualization course syllabus" - setting the virtualization course syllabus, Amirkabir University of Technology
3. A Najafizadeh, SP Alvani **"CORS error handling in web developing"** - report and presentation of how to handle cross-origin-resource-sharing errors in web engineering, Amirkabir University of Technology

## HONORS, EVENTS, and REWARDS

- + In the top 10% among all 2023 Graduated Students in Computer Engineering department  
Amirkabir University of Technology 2023
  - + Head secretary of [12th Amirkabir Linux Festival](#)  
Amirkabir University of Technology 2022
  - + Member of the 16th term of the Scientific Association in Computer Engineering department  
Amirkabir University of Technology 2021-2022
  - + Staff and Website administrator at [International Collegiate Programming Contest \(ICPC\)](#)  
Amirkabir University of Technology 2021
  - + In the top 0.05% in the [Nation-wide University Entry Exam \(aka Konkur\)](#) among all  
Iranian Students in Math & Physics 2019
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## NOTABLE ACADEMIC PROJECTS

**B.Sc. Project:** Implementing an automated penetration testing system for cloud-based applications. (Golang, JavaScript, Shell Script, Python, Docker, Kubernetes) ([organization](#))

**QJUM on Golang channels:** Adding scheduling feature to Golang channels in order to jump over their queues. (Golang) ([code](#))

**Pods Watcher:** Creating a Kubernetes controller for controlling and monitoring pods resource consumption. (Golang, Kubernetes) ([code](#))

**WebRTC:** Creating a web-based platform for making video calls by using WebRTC. (Golang) ([code](#))

**AuthX:** Creating a IDaaS application for authenticating the Amirkabir students in cloud computing course. (Golang, HTML, JavaScript, Docker) ([code](#))

**Jetstream Mirroring:** Using benthos to mirror income traffic of NATS cluster to another cluster in different region. (Golang, Benthos, Docker) ([code](#))

**IMDB website clone:** Implementing a movie streaming website like IMDB. (Go, HTML, JavaScript, Python) ([code](#))

**Chatroom over SSH:** Creating a secure chatroom over SSH. (Python) ([code](#))

**HTTP Endpoints monitoring:** Implementing a Restful API to monitor users' endpoints. (Golang, Docker) ([code](#))

**Service Monitoring with Prometheus:** Using Prometheus to expose metrics of a remote server. (Golang) ([code](#))

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## SKILLS & EXPERTISE

**Proficient in:** Golang, C, Python, Java, JavaScript, Shell Script, PHP, SQL/MySQL, Docker, Kubernetes, Helm Charts

**Fairly familiar with:** Dart, Latex, Rust, Ruby, C++, GraphQL, gRPC

**Having experience of working with:** big data, SSH, PostgreSQL, MongoDB, Redis, Gitlab CI/CD, GitHub Actions, Laravel, Vue.js

**Tools:** Git, Ansible, Terraform, Jenkins, OpenShift, Argo CD, Elasticsearch, Prometheus, Grafana, NginX, HAProxy, Firewall, DNS server, Mail server, QEMU, KVM, S3, MinIO, Ceph, NATS, Kafka, RabbitMQ

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## TEACHING ASSISTANTS

- |  |                    |
|--|--------------------|
| ○ Internet Engineering   | <i>Fall 2023</i>   |
| • Under supervision of <a href="#">Lecturer. Seyed Parham Alvani</a> |                    |
| • Designed Projects, Graded Assignments, Held TA Classes             |                    |
| ○ Cloud Computing  | <i>Spring 2023</i> |
| • Under supervision of <a href="#">Prof. Seyed Ahmad Javadi</a>      |                    |
| • Head Teacher Assistant   |                    |
| ○ Computer Networks  | <i>Spring 2023</i> |
| • Under supervision of <a href="#">Prof. Babak Sadeghian</a>         |                    |
| • Head Teacher Assistant   |                    |
| ○ Operating Systems  | <i>Spring 2022</i> |
| • Under supervision of <a href="#">Prof. Seyed Ahmad Javadi</a>      |                    |
| • Graded Assignments, Designed Projects, Created educational videos  |                    |
| ○ Principle of Database design                                       | <i>Spring 2022</i> |
| • Under supervision of <a href="#">Prof. Saeedeh Momtazi</a>         |                    |
| • Graded Assignments, Designed Projects, Graded Exams                |                    |

## SPOKEN LANGUAGES

- English Proficient
  - TOEFL (Will take in October 7th)
- Persian Native Speaker

## CERTIFICATES, AND COURSES

- |   |  |                |
|---|--|----------------|
| + | "Docker - Docker Swarm", <a href="#">KodeKloud</a> | (Certificated) |
| + | "Kubernetes", <a href="#">KodeKloud</a>            | (Certificated) |
| + | "Helm Charts", <a href="#">KodeKloud</a>           | (Certificated) |
| + | "Full hands-on Docker", <a href="#">Udemy</a>      | (Certificated) |
| + | "Introduction to containers", <a href="#">IBM</a>  | (In progress)  |

## INTERNSHIPS

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|--|--------------------|
| ○ <a href="#">Snapp! company</a>                   | <i>Summer 2022</i> |
| • Software and Cloud Engineer                      |                    |
| • Learned: Golang, Microservice, NATS, OpenShift   |                    |
| ○ <a href="#">Sharif University of Technology</a>  | <i>Summer 2021</i> |
| • Backend Developer                                |                    |
| • Learned: PHP, Laravel, MVC, Linux, MySQL, Docker |                    |

## REFERENCES

Babak Sadeghian (Prof.)	<a href="mailto:basadegh@aut.ac.ir">basadegh@aut.ac.ir</a>
Seyed Ahmad Javadi (Prof.)	<a href="mailto:sjavadi@aut.ac.ir">sjavadi@aut.ac.ir</a>
Saeedeh Momtazi (Prof.)	<a href="mailto:momtazi@aut.ac.ir">momtazi@aut.ac.ir</a>
Masood Sabaie (Prof.)	<a href="mailto:sabaei@aut.ac.ir">sabaei@aut.ac.ir</a>
Seyed Parham Alvani (Lecturer)	<a href="mailto:parham.alvani@aut.ac.ir">parham.alvani@aut.ac.ir</a>

*Certificates, documents, and other references are available upon request.*  
*Last update: September 22, 2023*