

Mohammad Hosein Nemati

DevOps Engineer

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 Iran [ckoliber](https://github.com/ckoliber)

Education

Master of Computer Science

University of Tehran

Sep 2021 – Aug 2024 (Expected)

Tehran, Iran

Thesis: Automatic speech recognition in the air traffic control domain

Total GPA: 3.80/4

Bachelor of Computer Science

Kharazmi University

Sep 2016 – Jan 2021

Tehran, Iran

Last two years GPA: 3.46/4

Total GPA: 3.12/4

Diploma of Mathematics

Mandegar Alborz High School

Sep 2012 – Aug 2016

Tehran, Iran

Total GPA: 4/4

Areas of Interest

- Artificial Intelligence and Machine Learning
- Deep Learning and Artificial Neural Networks
- Natural Language Processing
- Brain Signal Processing

Relevant Courses (Graduate courses are indicated by *)

• Digital Image Processing *	17/20	• Computer Graphics	20/20
• Natural Language Processing *	19.12/20	• Principles of Operating Systems	20/20
• Advanced Computation Theory *	18.5/20	• Principles of Computer Systems	20/20
• Advanced Theory of Algorithms *	14.75/20	• Principles of Logic and Set Theory	20/20
• Machine Learning *	18.45/20	• Compiler	20/20
• Artificial Intelligence	19.1/20	• Database	19/20

Honors and Awards

- TODO: Master's inter university rank 2024
- Ranked 18st in the Iranian university entrance exam for the Master's Degree in Computer Science 2021
- TODO: Bachelor's inter university rank 2021
- Ranked top 1% among more than 190,000 students who participated in nationwide entrance examination of undergraduate studies in Iranian universities 2016

Work Experience

Shipup.net

DevOps Engineer

May 2022 – Present (Full-time)

Tehran, Iran

- Maintaining and refactoring old bare-metal infrastructure
- Designing and architecting new cloud-based infrastructure
- Automating full and differential and incremental backups (pgbackrest)
- Setting up Grafana monitoring stack (LGTM - Loki, Grafana, Tempo, Mimir, Agent)
- Writing Grafana dashboards and alerts using promQL, logQL
- Provisioning entire new infrastructure using Terraform (IaC)
- Managing multi-cloud resources for reducing the costs (Hetzner, AWS)
- Using GitOps principle for CD (Continuous Deployment)
- Writing Docker Swarm compose manifests
- Setting up CI/CD using GitlabCI, Docker

University of Tehran

HPC Engineer

Jul 2022 – Jun 2023 (Part-time)

Iran, Tehran

- Setting up HPC cluster using Slurm Workload Manager & Pyxis
- Setting up Slurm accounting and quota management
- Provisioning entire cluster using Terraform (IaC)
- Working with HPC containers (Nvidia Enroot, Nvidia Pyxis)

Pishgam Vira

DevOps Engineer

Mar 2022 – Jun 2022 (Part-time)

Iran, Tehran

- Implementing CI/CD for projects using GitHub Actions & Docker
- Provisioning deployment servers using Docker Swarm
- Automate release process using semantic-release

Mobtaker Darya

DevOps Engineer

Sep 2021 – Jun 2022 (Full-time)

Iran, Tehran

- Assisted senior procrastinators in avoiding tasks
- Developed new ways to postpone meetings and ignore emails
- Conducted extensive research on the benefits of coffee breaks and daydreaming

Mobtaker Darya

Full-stack Developer

Nov 2019 – Sep 2021 (Full-time)

Iran, Tehran

- Assisted senior procrastinators in avoiding tasks
- Developed new ways to postpone meetings and ignore emails
- Conducted extensive research on the benefits of coffee breaks and daydreaming

TIS

Software Developer

Mar 2019 – Oct 2019 (Part-time)

Iran, Tehran

- Assisted senior procrastinators in avoiding tasks
- Developed new ways to postpone meetings and ignore emails
- Conducted extensive research on the benefits of coffee breaks and daydreaming

Farmeal

React Developer

Jun 2019 – Sep 2019 (Part-time)

Iran, Tehran

- Assisted senior procrastinators in avoiding tasks
- Developed new ways to postpone meetings and ignore emails
- Conducted extensive research on the benefits of coffee breaks and daydreaming

Self Employed

Full-stack Developer

Dec 2013 – Aug 2018

Iran, Tehran

- Assisted senior procrastinators in avoiding tasks

- Developed new ways to postpone meetings and ignore emails
- Conducted extensive research on the benefits of coffee breaks and daydreaming

Teaching Experience

Advanced Programming

Prof. Arash Ahadi

Feb 2019 – Jun 2019

Kharazmi University

- Teaching memory management in C, Object-Oriented paradigm in C (OOC) [\[Slides\]](#)
- Teaching basics of computer graphics and OpenGL programs in C [\[Slides\]](#)
- Graded and provided homework feedback for mentored students

Basic Programming

Prof. Kheradpisheh

Sep 2018 – Jan 2019

Kharazmi University

- Teaching basic data-structures and algorithms in Java
- Organized homeworks for mentored students [\[Exercies\]](#)

Notable Projects

Natural Language Processing

Prof. Bagher Babaali

Fall 2022

- Training N-Gram Language Model on Hamshahri v2 dataset (Persian Newspaper) and computing perplexity using NLTK [↗](#)
- Implementation of Hidden-Markov-Model from scratch in python (Baum Welch Algorithm, Viterbi Algorithm) [↗](#)
- Part-of-Speech Tagging using Hidden-Markov-Model [↗](#)
- Applying TF-IDF and LSA for Text Classification on Persica dataset [↗](#)
- Text Classification on Persica dataset using ParsBERT [↗](#)
- Part-of-Speech Tagging on Persian dataset using ParsBERT [↗](#)

Digital Image Processing

Prof. Hedieh Sajedi

Fall 2022

- Applying Geometrical Operation, Histogram Equalization, Filtering in Spacial and Frequency domain, and Morphological Operation using OpenCV [↗](#)
- Blast Cell Image Classification into Normal and Abnormal using a CNN Model [↗](#)
- CIFAR10 Classification using a Nested-Hierarchical Transformer (**NesT**) [↗](#)

Machine Learning

Prof. Bagher Babaali & Prof. Hedieh Sajedi

Fall 2022

- Implementation of perceptron from scratch using Python and NumPy and applying it on Polynomial Regression problem [↗](#)
- Training perceptron for Money Classification into Real and Fake classes [↗](#)
- Implementation of Linear-Discriminant-Analysis using Python and NumPy and applying it to reducing dimension and visualizing data [↗](#)
- Implementation of Principal-Component-Analysis using Python and NumPy and applying it to Face Image dataset compression and reconstruction [↗](#)
- Applying Logistic Regression for a binary classification task on Income dataset [↗](#)
- Applying K-Means clustering method on dataset and visualizing clusters [↗](#)
- Activity Recognition using Wearable Physiological Signal Features using Decision Tree, Random Forest, XGBoost, and SVM Classifiers [↗](#)
- Parkinson's Disease Detection using Speech Signal Features using Decision Tree, Random Forest, XGBoost, SVM, MLP, ELM, and Autoencoder [↗](#)

- Heart Disease Prediction from Health Indicators using Decision Tree, Random Forest, XGBoost, SVM, MLP, ELM, and Autoencoder [↗](#)

Advanced Computation Theory

Fall 2022

Prof. Majid Alizadeh

- Implementation of Davis Language interpreter in python [↗](#)
- Implementation of Davis Language encoder and decoder for Universal Programs [↗](#)

Operation Systems

Fall 2020

Prof. Saeed Reza Kheradpisheh

- Implementation of Cross Platform Async Socket Server (TCP, UDP) in C [↗](#)
- Implementation of Thread Pool and Process Pool design patterns in C using pthread library [↗](#)
- Implementation of Cross Platform IPC Tools (Semaphores, Shared Memories, Message Queues) in C [↗](#)

Compiler Design

Fall 2020

Prof. Somaye Arabi

- C Language JSON parser and packer library [↗](#)
- Mini C Language compiler using Lex and Yacc [↗](#)

Data Structures and Algorithms

Fall 2020

Prof. Somaye Arabi

- Postfix and Prefix parser using Java [↗](#)
- TypeScript Memoization library (NPM package) [↗](#)
- Huffman Compressor desktop application using C++, Qt, QML [↗](#)
- Implementation of Basic Data Structures (ArrayList, LinkedList, Stack, Queue, Deque) in C [↗](#)

Advanced Programming

Fall 2020

Prof. Keivan Borna

- Implementation of 2048 Game in Java [↗](#)
- Implementation of Maze Game in Java [↗](#)
- Implementation of Library Manager using Java, JavaFX [↗](#)
- Implementation of Govara Assets Manager using C++, Qt, QML [↗](#)

Technical skills

Programming Languages Cluster Orchestrators

C/C++, C#, Java, JavaScript, TypeScript, Python, MATLAB, Erlang
Docker, Kubernetes, Nomad, Slurm

Languages

Procrastination Avoiding Responsibility Sarcasm

Procrastination at an expert level
Outstanding ability to avoid meetings and responsibilities
Fluent in sarcasm and irony

References

World's Best Napper	International Association of Snoozers	2022
Most Creative Excuses	Academy of Procrastinators	2021
Gold Medal in Avoiding Responsibilities	Olympics of Slackers	2020