

Ali Soltani Nezhad

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Skills

Programming: C++ (Metaheuristic Algorithms, Multithreading, Cryptography algorithms), C (MPI Library, ATmega module development), Python, Bash, Django, C#
Technologies/Tools: AWS, Prometheus, Jenkins, Serverless, Docker, Postgres, Linux, Git, Unity
Hardware Tech: ATmega (Hands on), STM32 (Mainly BLE, Linux Services), Arduino
Soft Skills: Communication, Team Collaboration
Languages: English (Fluent), Persian (Native)

Work Experience

Software Engineer - Backend

Feb 2023 - Present

MATT3R, Vancouver, BC, Canada - Remote

- Backend and Linux services development on IoT devices for AD vehicles and AWS using Python, Bash
- DevOps engineering using Serverless, Docker, Jenkins and AWS Services
- Designed and implemented service monitoring architecture using EC2, Prometheus and Grafana
- Designed and implemented an E2E RSA+AES Encrypted BLE GATT Server/Peripheral and API Services backend for IoT communication on Debian Linux over BlueZ, to be used on STM32 Embedded devices to communicate with client hardware
- Implemented passwordless auth workflow using Serverless, AWS Lambda and Cognito
- Deployed and built upon multiple open source projects such as BlueZ and MLOps platforms
- Built and maintained multiple Jenkins jobs and pipelines for AWS Deployments, Automation, Server Administration and SLS Deployments, using Bash, Groovy and Git.
- Built Python libraries and AWS supported Lambda Layers for self and other team members and teams to work on multiple co-related applications and projects.
- Built MQTT-API support for IoT devices to communicate with Cloud and other IoT devices using AWS IoT Core.
- **Technologies:** Python, Bash, AWS, Prometheus, Redis, Jenkins, Serverless, Docker, BLE(Bluetooth Low Energy), Git

Deep Learning using Python Course Instructor

Jan 2023 - March 2023

Private Company , Ahwaz, Khuzestan, Iran - On-site

- Instructed 20 People on Deep Learning using Python
- **Course Headlines:** Python, Deep Learning, Stock Analysis, Image Processing

Software Engineer - Backend

Jul 2022 - Feb 2023

SatPlat, Tehran, Iran - Hybrid — Sharif University of Technology

- Backend development using Python, Django
- **Technologies:** Python, Django, Postgres, Docker, Linux, Git

Freelance Software Developer

Jan 2021 - Jul 2022

Self Employed , Shiraz, Fars, Iran - Remote

- Developed multiple backend projects using Python, Django.
- **Technologies:** Python, Django, Postgres, Websocket, Git

Software Engineer - Backend*Dec 2019 - Jan 2021**AsrGooyeshPardaz* , Tehran, Iran - On-site — *Sharif University of Technology*

- Implemented a Chat support system and CMS using Python, Django. [Romand](#)
- Tutored multiple interns on Python, Django, APIs and Websockets.
- Administration of multiple Linux servers.
- Refactored and maintained old java applications.
- **Technologies:** Python, Django, Websocket, Java, Postgres, Linux, Git

BI SQL Developer*Jan 2019 - Jul 2019**Shiraz University* , Shiraz, Iran - On-site

- Developed SQL for a BI application for Shiraz University.
- **Technologies:** SQL, Apache Zeppelin, Spark, Linux, Git

Education

Shiraz University, Shiraz, Iran*Sep 2016 - Sep 2019*

Master of Science in Computer Software Engineering

GPA: 3.1/4.0

- Thesis: Human Emotion Analysis on Twitter Data Using Deep Learning - Grade: A+
- Skills: Python, Deep Learning, Neural Networks, Sentiment Analysis

Hamadan University of Technology, Hamadan, Iran*Sep 2012 - Sep 2016*

Bachelor of Science in Computer Hardware Engineering

GPA: 3.3/4.0

- Thesis: Developing a Secure Android Chat Application - Grade: A+
- Skills: Java, C++, C, Cryptography

Projects

Metaheuristic Algorithms (C++)*Feb - Aug 2017*

Developed multiple metaheuristic algorithms such as Genetic Algorithm, Ant Colony Optimization, and Tabu Search for solving optimization problems. These projects focused on efficiency and scalability using C++, highlighting multithreading capabilities for performance improvements in large-scale computations.

Cryptography (C++)*Feb - Aug 2017*

Explored cryptographic algorithms including breaking the One-Time Pad using C++. Applied C++ for secure encryption and decryption processes, emphasizing algorithmic efficiency and data handling.

1QMA Game (Django, Websockets)*Apr - Sep 2023*

Developed the backend application for an online live Question/Answer game using Python, Django, and Django Channels (Websockets) for real-time communication and data processing.

Endless Runner Game (Unity, C#)*Jul - Aug 2017*

Developed an endless runner game for Android, using Unity and C# for game logic and mechanics. This project showcased real-time 2D visualization techniques with smooth user interaction. APK file is available upon request.

Code is available on my Github.

Awards and Achievements

Ranked 200 on MSc SATs between 40000 contestants

Apr 2016

Leadership and Extracurricular

TA - Programming with C

Sep 2015 - Feb 2016

Scientific Association of CSE Department - President
Hamadan University of Technology, Hamadan, Iran

Jul 2013 - Sep 2014

- Managed and Held an ACM Competition at Hamadan University of Technology.

References

Available upon request.