Vahid H. Lakhani

C++ SOFTWARE DEVELOPER

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Summary

- Engaged and professional software developer with over **5+ years** of experience in software development.

- Extensive experience with object-oriented programming and strong skills in **C, C++, and Python**. Experienced in team leadership, mentoring, and continuous improvement of code quality.

- Strong critical thinking and problem-solving abilities, well-organized in time management, and enjoy working collaboratively. As a team player, I value supporting and sharing knowledge with colleagues.

Selected Projects

Distributed Database (C++17) (Link)   *Freelance*
C++ DEVELOPER

Matrix Movie Rain Effect (C++11) (Link)   *Freelance*
C++ DEVELOPER

Rooster Wars (C++, Cocos2d-x, .Net, C#) (Proprietary software)   *Medrick FZE*
GAMEPLAY DEVELOPER, UI DEVELOPER, NETWORK DEVELOPER, AND DATA ANALYSIS DEVELOPER

Zero to Hundred: The Last Gear (C++, Cocos2d-x, .Net, C#) (Proprietary software)   *Medrick FZE*
GAMEPLAY DEVELOPER, UI DEVELOPER, NETWORK DEVELOPER, AND DATA ANALYSIS DEVELOPER

ESP32-BME680-C (Embedded C, Python, SQLite, InfluxDB, Grafana) (Link)   *Freelance*
EMBEDDED C DEVELOPER

MultiPaxos (C, Bash) (Link)   *Freelance*
C DEVELOPER

TinyBlockchain (C++, REST API) (Link)   *Freelance*
C++ DEVELOPER

CropItGame (C++, Cocos2d-x) (Link)   *Freelance*
C++ DEVELOPER

Snakes and Ladders (C) (Link)   *Freelance*
C DEVELOPER

Terminal Card Game (C++) (Link)   *Freelance*
C++ DEVELOPER

ParticleSwarm (C++, SDL) (Link)   *Freelance*
C++ DEVELOPER

Matrix Multiplication (C++) (Link)   *Freelance*
C++ DEVELOPER

Technologies and Tools

Programming Languages
C, C++, C#, PYTHON, GO

Tools and Frameworks
CMAKE, GIT, GDB, VALGRIND, QT, COCOS2D-X, UNITY3D

Embedded & Systems Level

ESP32, FreeRTOS

Other

Grafana, Docker, Amazon EC2, TLA+, GitHub Actions

Work Experience

Freelancer
Sandnes, Norway

FREELANCE DEVELOPER
March 2024 – Present

- Programming languages and tools: C, C++, C#, Cocos2d-x, Nakama, Unity3D

University of Stavanger
Stavanger, Norway

RESEARCHER
October 2020 – March 2024

- Programming languages and tools: Go, Python, C++, Amazon EC2, TLA
- Published academic articles, developed software, and mentored students.

Medrick FZE
Tehran, Iran

GAME DEVELOPER
May 2020 – October 2020

- Programming languages and tools: C#, .NET, Unity3D
- Optimized memory usage by 30% through the use of the blackboard design pattern.

Freelancer
Tehran, Iran

FREELANCE DEVELOPER
June 2019 – April 2020

- Programming languages and tools: C++, Python, Keras, Cocos2d-x
- Developed a fully functional open-source blockchain in C++ replicating core features of a proof-of-work blockchain network.
- Developed a 2D mobile game using Cocos2d-x and C++, which achieved significant success with over 10,000 downloads in the first week.
- Developed an LSTM model that improvises jazz solos using an LSTM network.

Università della Svizzera italiana
Lugano, Switzerland

RESEARCHER
June 2018 – May 2019

- Programming languages and tools: C, MariaDB
- Software development with Galera Cluster and MariaDB.

Medrick FZE
Tehran, Iran

GAME DEVELOPER
January 2015 – May 2018

- Programming languages and tools: C++, C#, .NET, Cocos2d-x
- Optimized memory usage and improved performance using the Singleton design pattern.
- Developed a debugging tool to locate local and global positions of objects across layers, which reduced development time by 40%.

Pouyandegan Danesh
Tehran, Iran

UNITY DEVELOPER
January 2014 – January 2015

- Programming languages and tools: C#, .NET, Unity3D, GIS
- Responsible for 3D simulation, including reading GIS data and accurately constructing the map in Unity3D for a train simulation project. Also implemented scene loading and unloading to manage memory usage efficiently.

Education

UiS
Stavanger, Norway

PHILOSOPHIAE DOCTOR IN COMPUTER SCIENCE (PHD)

Languages

Norwegian (B1 level), English (Professional proficiency), Farsi (Native)

References

Available upon request.