

# 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

### 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

### Matrix Movie Rain Effect (C++11) (Link)

Freelance

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

FREELANCE DEVELOPER

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

University of Stavanger

RESEARCHER

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

Medrick FZE

GAME DEVELOPER

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

Freelancer

FREELANCE DEVELOPER

- 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 improves jazz solos using an LSTM network.

Università della Svizzera italiana

RESEARCHER

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

Medrick FZE

GAME DEVELOPER

- 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

UNITY DEVELOPER

- 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

PHILOSOPHIAE DOCTOR IN COMPUTER SCIENCE (PHD)

Kharazmi University

MASTER OF SCIENCE IN COMPUTER SCIENCE (MSc)

AmirKabir University of Technology (AUT)

BACHELOR OF SCIENCE IN COMPUTER SCIENCE (BSc)

Languages

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

References

Available upon request.