Reza **Arjmandi**

Senior Software Engineer | Software Architect

1 +90 534 373 9664 @ arjmandi.re@gmail.com

▼ Turkey, Istanbul



Highly skilled, motivated, vigorous engineer with an unquenchable passion for learning, changing, inventing, and creating, with a fine grasp of engineering practices, SDLC, OOAD, QA, mastery of diverse set of development tools(C++11/14/17/20, QT/QML, STL, C, SQL, etc.) and techniques, and multiple business domains, and leadership qualities required for motivating a team, a natural problem solver with an analytic mind.

🗮 Knowledge and Skills

Programming Languages: C++ (11, 14, 17, 20), C, JavaScript, TypeScript, Python, Java, C# Linux, Win32, WinRT, POSIX, IO, threads, IPC, TCP/IP, sockets OS Level Programming Concepts:

> C++ Development: C++ STL, boost, Qt Framework Build Chaintools: CMake, MSBuild, node-gyp, Qmake Software Packaging: WiX Toolset, CPack, npm, Docker Web Development: React.js, Redux, Storybook, Material-UI

API Development: Django REST Framework, boost-beast, boost-asio, Restbed, Bottle

C++/CLI, WPF, Win Forms .NET Framework:

> Database: Microsoft SQL Server, MySQL, SQLite, Database Design

Version Control Systems : Git, TFVC

> Technologies: OpenCV, image processing, OpenGL, VTK, GLSL

Software Engineering: **Software architecture**, **TDD**, Object Oriented Analysis and Design

Agile Development: SCRUM, Refactoring, Continuous Integration

Test-driven Development: gtest/gmock, boost test, turtle mock, JUnit, Enzyme

> Error Reporting: Sentry, google breakpad/crashpad

Embedded Systems: Raspberry Pi, ARM/AVR μController, ESP8266

IOT Development: Emqtt broker, Erlang/OTP

Domain Knowledge: IOT, Telecommunications, Medical devices, Biomedical technologies



Work Experience

Present September 2021

Workpuls, Belgrade, Serbia

- > The low level OS (Win32, Mac and Linux) APIs are exposed through **node-addon-api**, used to create a native **Electron.js** desktop application.
- > Using Sentry and breakpad/crashpad as back-ends to have error reporting and crash reporting across multiple platforms (Windows, Linux, Mac).

node-addon-api node-gyp | ElectronJS | npm | RxJS | Sentry | google crashpad | google breakpad Async Programming | Win32 | Linux API | C++/CLI | MacOS API

September 2021 January 2019

FARAZ ERTEBAT, Tehran, Iran

- > Participated in development of a web project in domain of telecommunication equipment. Frontend was implemented through React. is framework and Back-end API was implemented through C++ **Restbed** framework.
- > Using **Storybook**, Jest and Enzyme.js for testing purposes.
- > Using TDD technique to implement software components, included unit tests, integration tests and acceptance tests.
- > Using **Boost.asio** to program network I/O asynchronously.
- > Getting to know the modern C++ asynchronous programming patterns through Boost.asio and co-

Asynchronous Programming | Boost.asio | Coroutine | React.js | C++ Restbed | Jest | Enzyme.js | Storybook | gtest |

2019

Parseh Intelligent Surgical Systems Co., Tehran, Iran

January 2016

- > Migration of Microsoft SQL Server projects under **SQLite**
- > Using **TDD** and test harness enclosure focus on **unit tests** in the development process.
- > Participated in development of automated build, **continuous integration**, automated software packaging and deployment.
- > Participated in re-engineering and **re-architecturing** of the existing system, through **TDD**.

C++11/14 STL Boost turtle mock TDD WPF C# C++/CLI OpenGL SQLite libzip Visualization Toolkit

MS Team Foundation MS Visual Studio Clean Architecture SCRUM

December 2016 January 2015

Institute for Advanced Medical Technologies, Tehran University, Iran

- > Collaboration with Image Guide Surgery Group(IGSG) laboratory.
- > Led and Implemented a low latency and real-time **image processing** software.
- > Involved real-time image acquisition from a Bronchoscopy device parallel with data acquisition from EM tracker.
- > Involved real-time visualization and data persistence.

C++11 STL threads MFC OpenCV Image Processing MVC Architecture XML Aurora EM tracker

February 2015

Raspberry Pi teacher, Shahed University Incubator Center, Iran

Taught advanced Raspberry Pi courses.

The course included a variety of interesting topics: **Raspberry Pi** board, **linux**, **Python**, web development(bottle), **image processing**, **OpenCV**, **IOT**, etc.

Raspberry Pi linux Python bottle OpenCV IOT

Languages



Accomplishment

- > National Programming Competition
- > 1st place winner
- > 2012

Education

2013 BSc in Biomedical Engineering - Shahed University, Tehran, Iran