

Giovanni Azzalini

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Summary

Experienced software engineer mainly in the field of audio technology. Well-versed in analysis, design and implementation of cross-platform frameworks, applications and real-time audio engines. Passionate about innovative technologies. Self-driven professional able to work in a team or independently, on multiple projects.

Skills

- C++, C, Objective-C, Swift, Java, Scala
- macOS/Win/iOS
- STL, Boost Libraries
- Real-time audio/MIDI
- Object-oriented analysis, design and development
- JUCE, AU, VST, protobuf, gRPC, Elasticsearch, Couchbase, USB/HID
- Design Patterns
- Bluetooth LE
- Problem solving
- Subversion, Git, Bitbucket, JIRA
- Code optimisations
- English professional working proficiency

Experience

SENIOR SOFTWARE ENGINEER, NEURAL DSP - REMOTE, ANTIBES, FRANCE – MAY 2020

- Analysis, design and development of cross-platform frameworks.
- Analysis, design and development of cross-platform audio plugins and real-time audio effects.
- Analysis, design and development of cross-platform unit tests framework for CI/CD.
- Optimisation of C++ code to improve CPU performance on Windows platform.
- Implementation of cross-platform USB/HID communication architecture.

SOFTWARE ENGINEER, AMADEUS, ANTIBES, FRANCE – MARCH 2019 - MAY 2020

- Development of security framework and micro-services in C++ for user administration, authentication and management.
- Development of massive data import/export systems in C++.
- Development of report engine in Scala, Kafka and Elasticsearch.
- Development of access control APIs in Java, gRPC, protobuf and Couchbase.

C++ SOFTWARE ENGINEER, IK MULTIMEDIA, MODENA, ITALY – OCTOBER 2009 - OCTOBER 2017

- Analysis, design and development of real-time audio and MIDI engines.
- Analysis, design and development of cross-platform frameworks.
- Analysis, design and development of cross-platform audio plugins, music synthesisers and real-time audio effects.
- Optimisation of C++ code to improve CPU performance and memory consumption.
- UI/UX design and development of desktop applications.

iOS SOFTWARE ENGINEER, IK MULTIMEDIA, MODENA, ITALY – MARCH 2010 - OCTOBER 2017

- Analysis, design and development of iOS applications based on real-time audio and MIDI engines.
- Optimisation of iOS applications: code profiling to improve CPU performance and memory consumption; ensure fast app launch while loading data in background.
- Analysis, design and development of framework to support communication between HW and iOS applications, based on Bluetooth LE and custom firmware.
- UI/UX design and development of iOS applications on different devices.

FREELANCE SOFTWARE DEVELOPER, ITALY – SEPTEMBER 2003 - SEPTEMBER 2009

- Development of software applications and utility tools in C++.

FREELANCE CAD DESIGNER, ITALY – SEPTEMBER 1999 - SEPTEMBER 2008

- Design architectural building projects using 2D and 3D CAD software.

Education

POLITECNICO DI MILANO, COMO, ITALY – OCTOBER 2005 - APRIL 2009

Master Degree, Computer Science for Sound Engineering.

FINAL PROJECT – APRIL 2008 - MARCH 2009

Background noise reduction on mobile phones by using multi-band LMS and NLMS adaptive filter algorithms.

POLITECNICO DI MILANO, MILAN, ITALY – OCTOBER 2000 - SEPTEMBER 2005

Bachelor Degree, Computer Science.

FINAL PROJECT – FEBRUARY 2005 - JULY 2005

3D web applications.

Accomplishments

SOUND AND MUSIC COMPUTING CONFERENCE (SMC2011)

International scientific conference around the core topics of Sound and Music Computing.

INTERNATIONAL CONFERENCE ON DIGITAL AUDIO EFFECTS - DAFX - 12TH EDITION - 2009

International scientific conference around the core topics of digital audio effects.

Interests

Music, running, books, travelling. Update and grow technology knowledges.