

Bruno Lourenço

Software Developer

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EXPERIENCE

Android Developer: [Bliss Applications](#), 2016 – current, Some live app examples: [1](#), [2](#), [3](#), [4](#)

Developing and maintaining native Android apps for various clients on agile multi-disciplinary teams. Using clean architecture with MVVM presentation, RxJava, Room, Dagger, Retrofit and Data Binding.

Android Developer: Independent, 2013 – 2016, Live apps [here](#) and [here](#)

Developed and published live-wallpapers, utility apps and games using Java and the Android SDK. Total of 4,5M downloads and 65k daily active users. Developed unit, integration and UI tests for critical modules.

EDUCATION

MSc in Information Systems and Computer Engineering: Instituto Superior Técnico, 2009 – 2013, 16.37/20, Master Thesis: E-Lumination – Lighting 3D Scenes Using Examples – 18/20 – [More Details](#)

BSc in Information Systems and Computer Engineering: Instituto Superior Técnico, 2006 – 2009, 12.93/20

PROJECTS

LagEngine: Personal Project, 2016 – current, [More Details](#)

C++11 real-time rendering engine. XML based resource meta-data. Hot reloading of file resources. Abstract renderer supporting multiple graphics API implementations. Render-queue based rendering architecture.

Path-Tracer: Personal Project, 2017, [More Details](#)

C++ multi-threaded path-tracer. Support lambertian, dielectrics, metal and emissive materials. Depth-of-field, texture and normal mapping, BVH hierarchy, HDR with tone mapping and bloom post-processing.

OpenGL Terrain Demo: Personal Project, 2015, [More Details](#)

Tech-demo using C++ and modern OpenGL. Dynamic GPU tessellation, multi-texturing based on altitude and slope, GPU frustum culling, single pass wireframe, shadow mapping and fog.

Ringgz: Professional Project, 2014, [More Details](#)

Designed, developed and published a re-imagined brick-breaker game using Java, libGDX and Box2D. Shader-based gameplay reactive colors and particle-systems. Many positive reviews on mobile websites.

SKILLS

Programming Languages: Proficient: C, C++, Java, GLSL. Familiar: Kotlin, C#, Common Lisp, x86 Assembly.

APIs/SDKs/Engines: Android SDK, OpenGL, libGDX, Unity3D, OpenCV, RxJava.

IDEs/Tools: Visual Studio, Android Studio (IntelliJ IDEA), CMake, CLion, Eclipse, Git, SVN, GIMP.

Computer Graphics: Knowledge of real-time and offline rendering, associated techniques and mathematics.

Networks: Knowledge of protocols, socket programming and network hardware.

Others: Knowledge of relational databases, SQL and computer architecture. Understanding of cyber security (network and systems) and penetration testing basics.

Languages: Portuguese (native), English (advanced), Spanish and French (basic understanding).
