

# Sergio Gavilán Fernández

## C++ Graphics / Games Developer

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### Work experience

**Android Developer** November 2019 – Present  
**Fundación ONCE / INSERTA**

Responsible for the development of Augmented Reality features to measure accessibility for Android devices with ARCore. Different profiles management using Firebase database and forms implementation.

Java, ARCore, Android Studio, XML, Firebase.

**Android Developer** July 2019 – August 2019 (2 months)  
**Open Summer of Code**

Member of the 'arbility' app development team: an AR simulator for accessibility evaluations. This project was made for "Fundación ONCE".

Java, ARCore, Android Studio, XML.

### Personal Summary

Game programming related topics are my passion, such as game engine programming, graphics or gameplay programming. I love to continuously learn about different fields of game development. I also love big data, deep learning and evolutive programming.

My strongest skills are my fast learning, creativity solving problems and my continuous craving for knowledge. I like to work with multidisciplinary people to hear and learn from them.

### Some projects (more projects available in the portfolio)

**Arbility**  
Java Augmented Reality mobile app for Fundación ONCE to check buildings physic accessibility.

**C++ Game Engine**  
C++ Game Engine from scratch: entity component based, Ogre3D for rendering, FMOD for audio, bullets physics engine, data-based architecture (terrain and entities factory read from json) ...  
<https://github.com/xBlacKnife/Proyecto-III>

**Cross-platform Java Game**  
University Project. Windows Desktop and Android game developed using Java in Android Studio. (Platforms abstraction, JAVA Swing for rendering, unique game logic for both platforms).  
<https://github.com/sgavil/VPM/>

**JS and Phaser Game**  
JavaScript and Phaser remake developed to be included in the Universidad Complutense de Madrid's Retro Games Museum.  
<https://srgxv1.github.io/SnowCousinsRemake>

**Python Texture Error Detector**  
Texture error detector system to find texture failures as well as to compare images and detect missing objects in scenes using patterns and colours. The project was tested in a Unity game  
<https://github.com/xBlacKnife/TextureErrorDetector>

### Education

**Game Development degree (Universidad Complutense de Madrid)** 2016-2020

### Skills

- Programming Languages
    - C/C++
    - Java
    - Python
    - GLSL
  - GameDev Technologies
    - Unity3D
    - OpenGL
    - Ogre3D
    - Android Studio
    - SDL
  - Game Engine Architecture and internals
  - AI for Video Games
  - Telemetry and Usability
- Others
    - Git
    - Premake
    - Scrum
    - LaTeX
    - Trello

### Extra Information

- Languages:
  - Spanish (mother tongue).
  - French (medium level).