

Pedro Bessa

Software Engineer

Porto, Portugal | [linkedin.com/in/pedrofnbessa](https://www.linkedin.com/in/pedrofnbessa) | github.com/tamanegicode

Summary

Software Engineer with 5+ years of experience developing cross-platform applications, with a strong focus on game development using Unity. Worked on a total of 8 projects in a professional capacity, 5 of which with involvement from the very early concept stages all the way to completion and release. Passionate about learning new technologies and determined to grow as a programmer. Eager to tackle increasingly ambitious and challenging projects. Willing to relocate on a global scale.

Experience

Virtual Campus Lda. Programmer / Unity Developer https://virtual-campus.eu/	April 2021 - Present Porto, Portugal
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- Developed cross-platform games for PC, Mac, Linux, Android, iOS, WebGL and Meta Quest (VR) in an Agile environment.
 - Coded gameplay mechanics and functionality of Unity games as part of larger projects co-funded by the European Union.
 - Collaborated with the art team to import, configure, and integrate assets such as 3D models, animations, textures, and materials into the Unity engine.
- Assisted with development of a game for the University of Thessaly's Creative Technologies Learning Lab, optimising performance resulting in a near 100% increase in frame rate.
- Mentored a newly hired programming intern, leading them through their first steps into game development.
- Guided a graphic design intern, introducing them to Unity's workflow and assisting with integrating visual assets into functional game scenes.

GILT - Games, Interaction and Learning Technologies Programmer / Unity Developer https://gilt.isep.ipp.pt/	May 2017 – April 2021 Porto, Portugal
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- Developed cross-platform games for PC, Mac, Linux, Android and iOS.
- Coded gameplay mechanics and functionality of video games developed using Unity.
- Realised proposed abstract concepts and ideas into concrete, implementable game design.
- Performed long term updates to older published projects, guaranteeing they continue to function on modern hardware and comply with Google Play Store/Apple App Store guidelines.

Skills

Professional Experience

C#, Unity, Git, PlasticSCM, Visual Studio, Vuforia, Virtual Reality (VR), Augmented Reality (AR)

Academic and/or Hobbyist Experience

C, C++, Java, Objective-C, HLSL, Pascal, Javascript, HTML5, CSS, Android Studio, Xcode, Unreal Engine, MonoGame, libGDX, raylib, MySQL

Education

Instituto Superior de Engenharia do Porto Computer Engineering - Graphics Systems And Multimedia https://www.isep.ipp.pt/	Master's Degree
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Instituto Politécnico do Cávado e do Ave Digital Games Development Engineering https://ipca.pt/	Bachelor's Degree
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Languages

Portuguese (Native)

English (C2)

Publications

Developing Emotional Intelligence with a Game: The League of Emotions Learners Approach Santos, J.; Jesmin, T.; Martis, A.; Maunder, M.; Cruz, S.; Novo, C.; Schiff, H.; Bessa, P.; Costa, R.; Carvalho, C.V.d. https://doi.org/10.3390/computers10080097	August 2021
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Creating Competitive Opponents for Serious Games through Dynamic Difficulty Adjustment Kristan, D.; Bessa, P.; Costa, R.; Vaz de Carvalho, C. https://doi.org/10.3390/info11030156	March 2020
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Developing Entrepreneurship Skills with a Serious Game Vaz de Carvalho, C., Costa, R., Bessa, P., Monterrubio, L., Santos, J. https://doi.org/10.1007/978-3-030-22602-2_26	June 2019
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LearnIt: A Serious Game to Support Study Methods in Engineering Education C. V. de Carvalho, P. Bessa, R. Costa, A. Barata and A. Costa https://doi.org/10.1109/EDUCON.2019.8725109	May 2019
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Projects

GaGEN

A serious game designed to promote environmental education through intergenerational learning.
<https://virtual-campus.eu/gagen/>

Tools: Unity, C# | Platforms: PC, Android, iOS, Web Browser

Snappy Witch

Side-scrolling game based on Flappy Bird.
<https://tamanegicode.itch.io/snappy-witch>

Tools: C++, raylib | Platforms: PC, Web Browser

FLER

Virtual escape room with the purpose of enhancing financial literacy among adults.
<https://flerproject.eu/game/>

Tools: Unity, C# | Platforms: PC, Web Browser

NATURE

City builder aimed at teaching higher education students about management of natural resources and environmental sustainability.
<https://ctlle-ce.uth.gr/index.php/nature/>

Tools: Unity, C# | Platform: PC

XR Skills

Virtual Reality game designed for teachers and educators to improve stress management skills.
<https://xrskill.infoproject.eu/>

Tools: Unity, C# | Platforms: PC, Meta Quest

270 Seconds

Augmented Reality app developed for an art presentation that explores the theme of brain death.
<https://github.com/ShenanigansInc/270-seconds/>

Tools: Unity, Vuforia, C# | Platform: Android

DeStress

3D dialogue-based game about coping with stress at the workplace.
<https://destress.eu/en/outcome-2/>

Tools: Unity, C# | Platforms: PC, macOS

LOEL - League of Emotions Learners

Game for children and young teenagers that focuses on developing emotional intelligence through varied minigames and gamified activities.
https://virtual-campus.eu/vc_product/loel/

Tools: Unity, C# | Platforms: Android, iOS

Transform@

Board game centered around entrepreneurship in rural areas.
https://virtual-campus.eu/vc_product/transform/

Tools: Unity, C# | Platforms: PC, Web Browser

LearnIt

Brain training minigame compilation for Polytechnic of Porto students.
Tools: Unity, C# | Platforms: PC, Android, iOS

Project Snatcher

2D stealth game for Android devices.
<https://tamanegicode.itch.io/project-snatcher>

Tools: Java, libGDX, Android Studio | Platform: Android

Tanks!

3D tank battle game prototype.
<https://github.com/tamanegicode/tanks>

Tools: C#, MonoGame | Platform: PC

Certifications

Certificate of Proficiency in English

Cambridge Assessment English
CEFR level: C2 – Grade A (Score 225/230)

December 2022

Others

Delivered introductory lectures on Unity game development for a master’s program at Instituto Superior de Engenharia do Porto, by faculty invitation.