Pedro Bessa

Software Engineer

Porto, Portugal | pedrobessa.dev | linkedin.com/in/pedrofnbessa | github.com/tamanegicode | tamanegicode.itch.io

Summary

Software Engineer with 5+ years of professional experience developing cross-platform applications, primarily in game development using Unity and C#. I hold a bachelor's in Game Development and a master's in Computer Engineering, a combo that's given me both creative grounding and strong technical foundations. Contributed to 8 shipped titles in a professional capacity, 5 of which I supported from concept to release. Driven by curiosity and a constant desire to grow, I actively seek out ambitious projects that challenge me, whether that means tackling complex problems or diving into new technologies and unfamiliar tech stacks. Open to global relocation for the right opportunity.

Experience

Virtual Campus Lda. — **April 2021 – Present**
Programmer / Unity Developer — Porto, Portugal
https://virtual-campus.eu

- Developed cross-platform games targeting PC, Mac, Linux, Android, iOS, WebGL, and Meta Quest (VR) in an Agile environment.
  - Built and maintained core gameplay systems and functionality of games developed as part of larger projects co-funded by the European Union.
  - Took ownership of full project lifecycle on select titles, from initial prototype to deployment.
  - Collaborated with the art team to import, configure, and integrate 3D models, animations, and other visual assets into production-ready scenes.
- Optimised a Unity-based project for the University of Thessaly's Creative Technologies Learning Lab, achieving nearly 2x performance improvement.
- Mentored a junior programming intern, introducing best practices and guiding them through their first steps into game development.
- Provided Unity onboarding and workflow support to a graphic design intern, helping bridge the gap between visual design and implementation.

GILT - Games, Interaction and Learning Technologies — **May 2017 – April 2021**
Programmer / Unity Developer — Porto, Portugal
https://gilt.isep.ipp.pt

- Developed cross-platform games targeting PC, Mac, Linux, Android, and iOS.
  - Implemented core gameplay systems and mechanics based on design specs and iteration feedback.
  - Translated abstract design concepts into implementable gameplay features and UI/UX interactions.
- Maintained and updated legacy projects to ensure compatibility with modern devices and platform compliance (Google Play Store, Apple App Store).

Skills

Professional Experience

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

Additional Experience

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

Education

Instituto Superior de Engenharia do Porto — Master's Degree
Computer Engineering – Graphics Systems And Multimedia
https://isep.ipp.pt

Instituto Politécnico do Cávado e do Ave — Bachelor's Degree
Digital Games Development Engineering
https://ipca.pt

Publications

Developing Emotional Intelligence with a Game: The League of Emotions Learners Approach — **August 2021**
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

Creating Competitive Opponents for Serious Games through Dynamic Difficulty Adjustment — **March 2020**
Kristan, D.; Bessa, P.; Costa, R.; Vaz de Carvalho, C.
https://doi.org/10.3390/info11030156

Developing Entrepreneurship Skills with a Serious Game — **June 2019**
Vaz de Carvalho, C., Costa, R., Bessa, P., Monterrubio, L., Santos, J.
https://doi.org/10.1007/978-3-030-22602-2_26

LearnIt: A Serious Game to Support Study Methods in Engineering Education — **May 2019**
C. V. de Carvalho, P. Bessa, R. Costa, A. Barata and A. Costa
https://doi.org/10.1109/EDUCON.2019.8725109

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://ctll.e-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
Collection of brain-training minigames created for Instituto Superior de Engenharia do 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 — **December 2022**
Cambridge Assessment English

CEFR Level C2, Grade A (Score 225/230)

Languages

Portuguese – Native

English – Full professional proficiency (C2 CEFR)

Others

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