

# Renan Macedo

SOFTWARE DEVELOPER | FLUTTER ENGINEER | UNITY / UNREAL GAME DEVELOPER | XR DEVELOPER

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[Portfolio](#) | [LinkedIn](#) | [ArtStation](#)

## PROFESSIONAL SUMMARY

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Multidisciplinary Software and Game Developer with 10+ years of experience building cross-platform applications, games, VR/XR experiences, and real-time interactive products. Strong background in Flutter, Unity, Unreal Engine, Firebase, WebSockets, REST APIs, scalable architecture, gameplay systems, and UI/UX. Creator of Character Craft 5.5e and contributor to digital products used by tens of thousands of users. Experienced in full-cycle development, from prototyping and architecture decisions to publishing, live operations, and continuous product evolution.

## SELECTED IMPACT

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**60,000+ monthly active users on Radio NT** | **110,000+ combined downloads across streaming apps** | **12,000+ downloads for Character Craft 5.5e in its first 10 months**

**Multiplayer VR projects for Meta Quest** | **80.lv contributor on Unreal Engine procedural generation** | **10+ years working across apps, games, education, and real-time experiences**

## CORE EXPERTISE

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**Application Development:** Flutter, Dart, cross-platform architecture, Firebase, WebSockets, REST APIs, JSON data modeling, authentication, push notifications, store publishing

**Game & XR Development:** Unity, Unreal Engine, C#, gameplay programming, multiplayer systems, VR/XR, Meta Quest, procedural generation, UI/UX, real-time interaction

**Additional Tools:** Git, Firebase Auth, Firestore, Cloud Messaging, App Check, Aximmetry, Virtual Production pipelines, motion capture workflows

## PROFESSIONAL EXPERIENCE

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### Rede Novo Tempo de Comunicacao - Software, Game & XR Developer / Virtual Production Technical Lead

Brazil | Mar 2018 - Present

- Led the redevelopment and continuous evolution of **NTPlay** and **Radio NT**, cross-platform Flutter applications for video and audio streaming.
- Owned application architecture, UI/UX implementation, Firebase services, authentication, APIs, push notifications, analytics, store publishing, and ongoing maintenance.
- **Radio NT supports 60,000+ monthly active users**; the streaming ecosystem has surpassed **110,000 combined downloads**.
- Developed games and interactive experiences, including **A Jornada**, contributing to game design, team coordination, gameplay implementation, and launch support.
- Built VR solutions and real-time interactive experiences for events, technology demonstrations, and virtual production workflows.
- Acted as technical lead for Unreal Engine and Aximmetry virtual production pipelines, including virtual environments, motion capture, animation rendering, and real-time integration.

### CodeBuddy - Developer, Educational Content Creator & Teacher

Brazil | 2016 - 2018

- Taught game programming, app development, robotics, game design, and gamification for children and teenagers.
- Created educational materials and learning content used by the school network in Brazil.
- Developed the teaching platform used by the units until 2019.

## SELECTED PROJECTS

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### **Character Craft 5.5e - Creator & Lead Developer | Flutter, WebSockets, Firebase**

Cross-platform RPG companion app for Android, iOS, macOS, and Windows, with **12,000+ downloads in the first 10 months**. Designed an advanced JSON-based character management system and rebuilt the online infrastructure for real-time game rooms, migrating room synchronization from Firebase Firestore to a **WebSocket-based architecture**. Integrated authentication, push notifications, App Check security, and cross-platform publishing workflows.

### **Tracbel VR | Unreal Engine, Multiplayer VR, Meta Quest**

Real-time multiplayer VR experience for remote product demonstrations. Implemented user management, networking, and replication systems with dedicated-server support, enabling connected users to interact with life-size visualizations of Volvo heavy machinery.

### **A Jornada | Game Design, Gameplay Programming, Launch Support**

Turn-based puzzle game inspired by Lara Croft GO. Worked on gameplay systems, grid-based movement mechanics, player experience, UI/UX, production coordination, and launch activities.

### **SESI & Equatorial Energia VR Safety Simulations | Unreal Engine, Meta Quest**

Developed immersive workplace-safety training simulations for NR35 Working at Heights and NR33 Confined Spaces scenarios, with guided interactions and real-time VR experiences.

### **Minha Igreja - Prototype | Flutter, Firebase**

Mobile and web church-management prototype with member management, communication features, and real-time data synchronization.

## PUBLICATIONS & THOUGHT LEADERSHIP

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### **80 Level (80.lv) - Technical Articles**

- [Procedural Medieval Village Generator Set-up in Unreal Engine 5](#)
- [Experimenting with UE5.2's Procedural Content Generation Framework](#)

## TECHNICAL SKILLS

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**Languages:** C#, Dart, JavaScript / TypeScript; working knowledge of C++ (Unreal) and Python

**Mobile & Frontend:** Flutter, cross-platform apps, mobile UI/UX, Android, iOS, macOS, Windows

**Backend & Real-Time:** WebSockets, Firebase (Firestore, Auth, Cloud Messaging, App Check), REST APIs, JSON, online/offline synchronization

**Games & XR:** Unity, Unreal Engine, gameplay systems, multiplayer architecture, VR/XR, Meta Quest, procedural generation

**Delivery:** Git, Google Play and App Store publishing, application lifecycle, live-product maintenance, Virtual Production workflows

## EDUCATION

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**Technology Degree in Digital Games** - Universidade FUMEC, Belo Horizonte, Brazil | 2013 - 2016

## LANGUAGES

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Portuguese - Native | English - Advanced