


Ivan Murzak


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[PORTFOLIO](#)

Software Engineer with 12 years of experience, 10 of them as Unity Developer. Creator of 17 open-source tools for Unity Engine. Owner, creator, and publisher of Evil Cogs - a mobile game for Android & iOS & PC. Created a team and managed 7 people (an artist, a UI designer, and 5 localizers). Evil Cogs got almost 5 million downloads. Wrote documentation for 20 projects (17 open-source, 3 commercial, one of these three is public available documentation in Tutorial format related to [EVE Master](#) project.

Engineering skills

- ★ C#, Java, C++, OOP
- ★ Project Architecture
- ★ Design patterns, Reactive, Dependency Injection, etc
- ★ Continuous Integration using Fastlane
- ★ .NET Core, ASP.NET Core, Kestrel
- ★ NGINX, Docker, CertBot, Let'sEncrypt, OVH
- ★ Documentation creation

Unity skills & tools set

- ★ **UI:** Doozy UI, TrueShadow, UI Effects, ProceduralImage
- ★ **Math:** Quaternions, Vectors, Imaginary numbers
- ★ **Tools:** UniRx, UniTask, Zenject / Extenject, ODIN, DOTween, Test Framework, Cinemachine, Addressables, etc
- ★ **Rendering:** URP, Shader Graph, Amplify Shader, Compute Shader, Math, and advanced 3D rendering knowledge
- ★ **Monetization:** AdMob, Appodeal, Unity IAP
- ★ **Optimization:** UI, Physics, Rendering, Shaders
- ★ **Nested prefabs:** I am the one who pushed Unity to implement it finally

Experience



Senior Unity Developer

Branch · Full-time · Hybrid

Feb 27, 2023 - Aug 14, 2023

 Seattle

[App Store](#), [Google Play](#)

- Updated project architecture to be scalable and flexible. That allows the project to grow from a prototype stage to a product.
- Developed a brand new UI in the project that is flexible and fits well on mobile.
- Wrote documentation for the team, and created tech standards for developing the game. That improved the quality of the project, and allowed new developers to jump on board twice faster.
- Analyzed project and created documentation that shows performance issues in the project well sorted and organized. Helped the team to prioritize and to resolve these issues. I covered the most performance-drained issues that improved project performance by ~40%.



Senior Unity Developer & Team Lead

Diveo Media · Contract · Remote

Sep 1, 2021 - Mar 1, 2023

 Kyiv

[App Store](#), [Google Play](#), [Trailer](#)

- Leading the development process of the mobile game for iOS & Android platforms from scratch to production. Constructed efficient communication between management and development departments. Collaborated with the Product Lead to convert ideas into roadmaps and detailed technical tasks for the engineering team.
- Created a puzzle builder Unity Editor tool that automated puzzle resources generation and saved the budget of the project because it removed 40% of the work amount of the art department.
- Created a custom shader to render fake light that worked with generated normal maps to simulate light on a completely flat jigsaw in the game based on the gyroscope's gravity as a light vector.

- Developed a custom analytics reusable package, that is used in multiple games. This approach saved the company money because engineers need less time (1 day instead of 5 days) on analytics integration into games of the company, and will save even more in the future for all future games.



Senior Unity Developer

HappyFunCorp · Contract · Remote

May 1, 2021 - Mar 1, 2023

📍 New York

[App Store](#), [Google Play](#). Developed Mistakes by Nosey mobile story-telling game.

- Created parallax effect for iOS & Android using Unity Engine based on gyroscope input.
- Made a custom UI scaling solution that allows us to make precise UI designs on any device's screen with any aspect ratio, which improved the quality of UI design and allowed us to make it more readable for end users.
- Added communication with a server to load and show the data in the UI.
- Integrated Firebase analytics and remote push notifications.
- Saved the budget of the project by creating CI/CD for App Store and Google Play using Fastlane.



Senior Unity Developer

3D Generation GmbH · Contract · Remote

Feb 1, 2020 - Nov 30, 2020

📍 Kyiv

[App Store](#), [Google Play](#).

- I was a single Unity Developer who developed the whole application for iOS & Android using Unity Engine.
- Integrated Google ARCore and Apple ARKit and using that I projected a scanned 3D model of a user into the world.
- Integrated native plugins to record videos, take photos, and share them in iOS & Android operating systems.
- Implemented around 50 custom dedicated screens of UI in the app, using Safe Area for modern mobile devices. Integrated different animations and custom UI elements.
- Made REST API implementation to communicate with the server.
- Made a local database to keep data locally. Developed an Online Store feature in the app with local data saving of cart.



Senior Unity Developer & Founder & Game Designer

Tap Top Fun · Part-time · Remote

Jul 1, 2018 - Feb 1, 2020

📍 Kyiv

[Idle Tower Defense - Trailer](#), [Color Water Puzzle Sort - App Store](#). Founded a team of just two people. We made the Idle Tower Defense and Color Water Sort Puzzle mobile games for iOS & Android platforms.

- Built the team and organized the work on two different games.
- Game-designed Idle Tower Defense and Color Water Sort Puzzle.
- Managed a full-cycle of development process, from idea, design, development, and production.
- Implemented **the tool** for creating splines in the game for making curved walls, trails, rivers, beach lines, and ground elevations.
- Created custom shaders for the ocean, river, and curved splines. Made a shader for liquid in a bottle.



Senior Unity Developer

ShowMeBiz Ltd · Full-time · Remote

Feb 1, 2019 - Nov 1, 2019

📍 Kyiv

I was part of the Unity developers team that worked on VR apps for iOS & Android. We made the app similar to Google Street View just in VR, with a stylized VR user interface and the ability to travel around the world through the app and visit public and business conferences. My direct responsibility was VR UI implementation, data loading from a server and visualizing this data in UI, team management, and task delegation for the team. I partially had a team leader role.



Unity Developer & Founder & Game Designer

Wet Fish · Part-time · Hybrid

Jun 1, 2013 - Oct 1, 2018

[Trailer](#), [App Store](#).

- Founded Wet Fish. Build a team of 11 people and organize their work. There are 2D artists, Level Designer, User Interface Designer, Animator, Game Designer, Sound Designer, Localizers.
- We created the Evil Cogs game and self-published it to App Store, Google Play, and Steam.
- As Unity Developer developed character control, and advanced camera movement system (before Cinemachine was released).
- Developed tools for level design, tools for physics, and logic triggers into a level.
- Integrated four analytics services. Integrated sounds into the game and added triggers to play the sounds with random pitch changes each time as an option.



Lead Android Developer & Co-Founder

Capitan Inc · Fulltime · Hybrid

May 1, 2015 - Apr 1, 2016

Kyiv

[Android & iOS groceries shopping list app](#).

Developed the Android app from scratch. Designed and implemented the UI & UX of the app. Designed database architecture for Android & iOS apps that is well synchronized with the server by REST API no matter what happened with the internet connection. Developed a WearOS version of this app that is synchronized with the main app on a smartphone device. Integrated push notifications to notify a user when somebody from a shared list is close to a store, to remind that person to buy something if needed.



Lead Android Developer & Co-Founder

Latio Inc · Fulltime · Hybrid

Jan 1, 2014 - Jun 1, 2015

Kyiv

Project #1 - Latio - App

Developed an Android app that works with iBeacon technology based on Bluetooth Low Energy to show targeted and customized advertisements for people that are close enough to a restaurant. Users were able to receive free drinks or something else as a reward for interactions with the app. Developed the app from scratch with a full cycle of production, UI & UX design, and implementation. Integrated Firebase analytics and push notifications. REST communication with our custom server to receive data about each iBeacon and related triggers in visible proximity. Interpolated the proximity to iBeacon using noise cancelation algorithms.

Project #2 - Latio - iBeacon-SDK (Software Development Kit)

Created a SaaS (Software as a Service) solution for clients who want to implement iBeacon functionality into their apps iOS & Android. Developed the Software Development Kit (SDK) that is connected to our server. Implemented friendly API for third-party developers to communicate with our server.

The server has an admin panel that allows clients to add and customize triggers, distances, and data of events that could be triggered on the app side via SDK in chosen proximity to the iBeacon device. Worked with math models and noise cancellation for better beacon proximity estimation using MathLab and Unity Engine for visualization.



Middle Android Developer

EPAM Systems · Full-time · On-site

Feb 1, 2012 - Jun 1, 2013

Vinnytsia

Project #1 - Yandex Music (as Middle Android Developer)

[Google Play](#). I was in a team of 5 people working on the mobile app Yandex Music. We developed the app from scratch for the customer Yandex. It is a very popular app, it has more than 50 million downloads on Google Play.

Developed the exact music player with custom ability to play encrypted music files at runtime. Implemented encryption/decryption algorithm which I used to encrypt music while it is downloading. No chance to pirate it as a file. Created listener of headphones events for auto-pause/resume. Added push notifications and a desktop widget with quick buttons to control the music player while the app is in the background

Project #2 - Hit Of Happiness (as Junior Android Developer)

Worked on the project Hit Of Happiness for Coca-Cola as a customer. It was the application for the Olympic games in London. I developed the part of the app that is responsible for rendering multiple layers of bubbles in parallax with custom animations. The front layer of bubbles is interactive, users are able to drag it. Physics simulation, bounce effects, collisions with each other, drag force. All of that is on pure Java and pure OpenGL.

 **Junior Java Developer** Dec 1, 2011 - Feb 1, 2012
SysIQ Inc · Full-time · On-site  Vinnytsia

Start of my career, I worked on a node based engine for the creation of E-Commerce web stores. The company provided online store development for different clients. Was in a team that made one for Timberland (a popular brand of boots and clothes). Later the company was renamed from SysIQ to Astound. [Customer's web-site](#) that I made some contribution to.


Education



Vinnytsia National Technical University

Master of Computer Science

Sep 1, 2010 - Jul 20, 2015


 Vinnytsia



STEP IT Academy

Software Engineering, C, C++, C#

Jun 1, 2009 - Jul 1, 2011

 Vinnytsia

Honors & Awards



Certificate of Achievement: Honorable Mention

ACM-ICPC

Sep 1, 2012

 Moldova



Certificate of Achievement: Second Place

ACM-ICPC

Apr 1, 2012

 Ukraine



Certificate of Achievement: Honorable Mention

ACM-ICPC

May 1, 2011

 Ukraine



Certificate of Achievement: Third Place

ACM-ICPC

Apr 1, 2011

 Ukraine

Patents



Computer program to simulate the process of encoding information files by direct parallel-hierarchical transformation without masks

Patent ID: FJ 45425 · Issued Sep 3, 2012