Senya Pugach

portfolio mail github linkedin telegram instagram

I am a creative developer who builds highly optimised award-winning products and experiences on the web. My works have won prestigious awards such as the **iF Gold Design Award (the "design Oscar"), the Red Dot Design Award, and The Webby Awards.** In addition, **two U.S. patents** were filled for my latest project.

I have a wide range of skills and experience in programming various technologies and platforms. Some of them are: **3D engines** in browsers, websites in **React, Vue.js and Angular (TypeScript or JavaScript)**, games in **Unity and Godot, AR** apps for iOS, stunning **WebGL** experiences, multiplayer games in JavaScript, automation tools, generative designs, voice-controlled games, brain-computer interfaces, Windows Phone apps, chatbots, raytracing and raycasting engines and **node.js** services.

Although I love design, I am also passionate about research, science, and experimentation.
I love taking a vague outline of a solution and transforming it into a production-ready product.

Employments

Vimeo Labs *remote*
WebGL team teamlead & lead 3D developer *april 2021 – august 2022*

I joined Vimeo Labs to build Vimeo Venues: a live events platform for small and massive events that makes them more interactive and engaging, driving a higher return. I joined in the early stages of the project and was responsible for creating the main visual part of the application: an interactive animated WebGL user interface.

- I was the team leader of a three-person WebGL team and the leading 3D developer
- architected and developed a complex WebGL UI from scratch
- optimized the React and WebGL parts of the app, achieving 60 FPS in all browsers, even on the weakest devices, which is an excellent result for such an advanced WebGL application that can support up to 16 video streams
- found, debugged and fixed a significant performance issue in the WebRTC contractor code providing audio/video calls even without having the SDK source code
- developed, designed and implemented the Reactions — disappearing GIFs used by a large audience to react to an event in the broadcast. Playing a large number of GIFs is a complicated engineering task, especially in a browser. I created a complex system that allows you to play a huge number of unique (>1,024) and duplicated (>16,384) GIF reactions with great performance and little use of video memory, which is extremely limited in browsers. There have been 2 U.S. patent applications filed for this system.

In a year and a half at the company, I created an innovative live experience product that filled 2 U.S. patent applications.

Art. Lebedev Studio *Moscow, Russia*
R&D software engineer *november 2017 – present*

In Art. Lebedev Studio, I was engaged in various projects that no one usually took on. Experiments, new technologies, automation, 3D.

Several projects that I have developed:
- Krono — 3D web engine & editor, which made the company's websites more impressive and sellable and reduced costs by cutting the development time **by four times: from one year to a couple of months**
- Aquarium.ru, Oflage.ru, Rukami, Sozvezdie — WebGL experiences built with Krono
- AR iOS game for bankers
- various internal tools and scripts to automate the work of designers
- 11 award-winning React & Vue.js & Angular websites
- generative designs

I finished **43 projects** and received **23 awards** during my time with the company.

Guga
creator *june 2021 – present*

Guga is a sandbox browser multiplayer game where you create memes by playing. Inspired by VRChat, Roblox and Garry's Mod, it works in a browser and is completely open for mod makers and community server hosting.

In this game, I am responsible for everything: game design, network programming & protocol, client-side prediction, lag compensation, rendering, authentication APIs, backend server, physics and so on. I also got crucial experience in building and growing a game community.

Pet projects
creator *2012 – present*

I enjoy experimenting and trying new things, so I often create pet projects that you can play with on my website.

Notable examples include 13 games made in just 2 days, a raytracing engine that fits into 7kb, a brain-computer interface or a translator from 8 languages to emojies.

Awards

2 pending U.S. patents

- iF Gold Design Award
- Red Dot Design Award
- iF Design Award
- The Webby Awards
- Awwwards (2x)
- CSS Design Awards
- FWA
- Tagline Awards (4x)
- ADCR Award
- Silver Archer
- Runet Rating (5x)
- Golden Site Award (3x)
- Event of the Year 2020
- Red Apple

Language

Russian (native)
English (proficient)