Sergei Trushkin

Senior TypeScript, Babylon.js & Vue 3 developer

Spain (UTC+0) · B2B as an autónomo, or an employment contract in Spain · sergei@trushkin.es · +34 623 74 24 20 · trushkin.es

Available for 20–30 hours a week, remote

SUMMARY

I build 3D for the browser: multiuser worlds, simulators and training systems, interactive presentations with video calls for participants. I design and write TypeScript architecture that lets projects grow without slowing down. I use AI coding tools every day and bring them into the team's workflow.

SELECTED WORK

Ecoverse

Multiuser Web3D metaverse for E-SPACES, Spain. Tech lead, architect, developer.

- A 3D world that runs in a web browser with no install. I designed the frontend architecture, led the team and wrote most of the client code.
- 1,500 users in one shared space at the same time
- Built-in conferencing: voice, video, broadcast to all, screen sharing right inside the 3D world, host controls
- Runs on budget smartphones and in the Meta Quest browser; selected spaces support immersive VR
- From scratch to first release in a year: two core team members + 2 specialists brought in as needed; 15 spaces, a new one takes a few hours

Stack: Babylon.js, Vue 3, TypeScript, WebRTC (OpenVidu)

Virtual makeup on a webcam

Sole developer: system design, architecture, Web3D, UI/UX. A project for Scanderm.

- Real-time makeup try-on on a regular webcam, running entirely in the browser. Adapts to different cameras and their formats. No app to install and no video sent to a server.
- Dozens of layers, like in Photoshop; similar systems usually handle one
- A look builds in under a second; after that, speed does not depend on the number of layers
- Highlights and reflections on the face and lips follow the real lighting
- Full HD and above, computed on the GPU
- Visual web editor to create looks, play them back and blend them

Stack: TypeScript, MediaPipe, Babylon.js

Industrial equipment simulators

An automatic sawing line and a climate test chamber. ClickON. Architect, UI/UX, developer.

- Interactive 3D equipment simulators that run in the browser. I was responsible for the project structure and architecture, and designed and built the interface.
- Good visual quality with fast loading of large scenes
- Built in one month by a team of two

Stack: Babylon.js, TypeScript, Vue 3

Oil and gas trainers and a lunar lighting simulator

Commissioned by E-SPACES, built at ClickON. Head of Web3D.

- 3D training simulators for oil and gas field specialists, plus a scientific visualisation. The video shows several projects.
- Assembly and disassembly of wellsite equipment, including in VR, with an exam mode
- A visual simulator of sunlight on the walls of Shackleton crater at the Moon's south pole, built from real LRO satellite data

Stack: Babylon.js, TypeScript, Vue 3

Real-time 3D pipeline layouts

Sole developer

- For oil and gas production: pipelines are routed in real time around obstacles, along the path that is optimal for cost, engineering soundness and ease of maintenance. Built on my own 3D implementation of the A* algorithm with a custom cost function.

Stack: JavaScript, Babylon.js

And we were...

Voluntary non-commercial art project by ClickON, led by Simon Trushkin. My part: UI/UX design and its implementation. · Awwwards Product Honors Winner (June 2026) and Honorable Mention (May 2026)

- A digital ocean of the subconscious, inspired by the underwater Museo Atlántico in Lanzarote: an interactive 3D journey in the browser where art reveals the fragility of modern humanity.

Stack: Vue 3, TypeScript, WebGL

OPEN SOURCE

Hand-gesture recognition for WebXR

An extension that expands the WebXR features of Babylon.js and adds hand-gesture recognition, including complex sequences.

@clickon/logger

Readable browser console output: coloured tags, groups, init stages, performance measurements, light and dark themes. Can print the log right on the page, handy for runtime debugging on mobile.

EXPERIENCE

Independent Web3D & Frontend Developer · Spain · 2025 – now · Building a cross-platform Web3D framework, client projects.

Tech Lead, E-SPACES (Spain) · 2020 – 2025 · Ecoverse: team leadership, system design, architecture, development.

Head of Web3D, ClickON · 2020 – 2025 · Leading the development team: training simulators, equipment simulators, 3D presentations.

Earlier — ClickON web agency · Manager, system designer, developer. Co-author of three officially registered software programs: CMS, Hospital ERP, Smartpoint.

SKILLS

- **Real-time 3D:** Babylon.js, WebGL, WebXR, performance for large multiuser scenes
- **Frontend:** TypeScript, Vue 3, Pinia, RxJS; architecture for large codebases
- **Real-time media:** WebRTC (OpenVidu), MediaPipe
- **Backend and data:** Node.js, Supabase, PostgreSQL schema design
- **AI in development:** I use Claude for code and tests; architecture, constraints and review stay with me

LANGUAGES & EDUCATION

Russian, English (working language), Spanish (learning)
Volgograd State Agricultural University — Automation of Production Processes

OUTSIDE WORK

Hiking, kitesurfing.

CONTACT

Email: sergei@trushkin.es · Phone: +34 623 74 24 20 · Telegram: @DrBlax
Website: trushkin.es · LinkedIn: linkedin.com/in/sergei-trushkin · YouTube demos: @ClickONWorkshop