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# PORTFOLIO

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PATRIK KONDAŠ

# PROFESSIONAL & ACADEMIC PROJECTS

## CITY DIGITAL TWIN INFORMATION SYSTEM BASED ON VR TECHNOLOGIES

OCT 2025 - MAY 2026

Currently working on this project ...

**Skills:** VR, Unity Engine, C#, ...

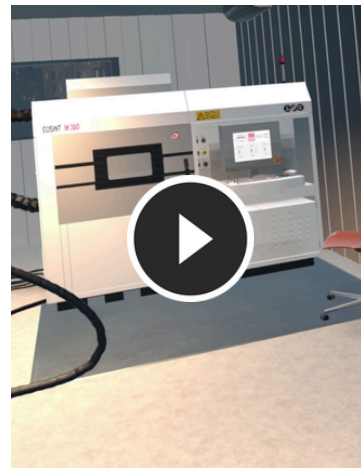


## VR 3D PRINTER SIMULATOR

JUN 2025 - AUG 2025

A Unity-based VR training platform for metal 3D printing, built to simulate real industrial workflows for operator training and evaluation. The system runs on Meta Quest devices, PCVR, and provides a spectator-only web version, using a Unity client with a Node.js backend for real-time synchronization. It supports multiple roles (Operator, Supervisor, Spectator) and offers training, assisted training, exams, and free-exploration modes. The simulation covers full workflow steps such as setup, powder handling, calibration, and safety procedures inside a detailed virtual laboratory.

**Skills:** VR, Unity Engine, C#, Blender, Websocket, REST API

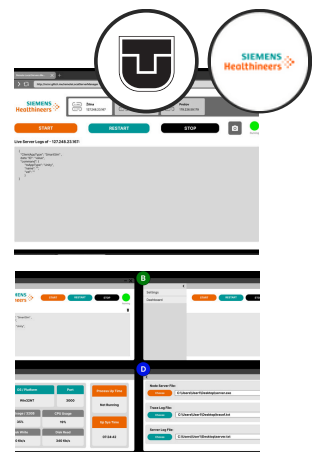
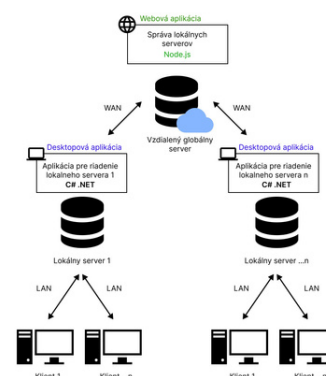


## WEB-BASED TOOL FOR REMOTE MANAGEMENT OF LOCAL SERVERS

OCT 2023 - MAY 2024

This work deals with the improvement of an existing web system by a web tool, designed for remote control of local servers. Based on the analysis, an extension of the existing system is proposed as a web tool for managing and monitoring local servers remotely. The proposed solution is implemented using web technologies.

**Skills:** Node.js, WebSocket, HTML, JavaScript, CSS, .NET Window Forms, C#



# INDEPENDENT PROJECTS

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## TEZSIM - CONTRIBUTOR

**AUG 2025 - PRESENT**

**In collaboration with:** Team TEZSim

A Unity-based freeware train simulator. My contribution involved mostly designing and implementing the user interface, including in-game world UI and interactive UI elements.

**Skills:** Collaboration, Unity Engine, UI Toolkit, C#, Figma



## VR SYSTEMS PROJECT

**APR 2025 - APR 2025**

A Unity-based VR project focused on creating an interactive virtual environment for Oculus Quest 2 and PC VR platforms.

**Skills:** VR, Unity Engine, C#, Blender



## CRYPTS & CARDS

**NOV 2024 - DEC 2024**

A Unity-based dungeon-crawling card game developed as a school project. Players explore randomly generated dungeons, face enemies, and use a small deck of cards to fight, heal, and progress. The game focuses on simple mechanics and a casual, fun experience.

**Skills:** Three.js, JavaScript, HTML, CSS

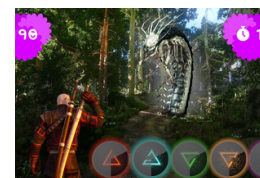


## DASHKA'S VILLAGE

**SEP 2024 - SEP 2024**

A Unity-based city-builder game with minigames and visual novel elements, created as a special gift and developed over the course of one month.

**Skills:** Unity Engine, C#, Blender, Krita

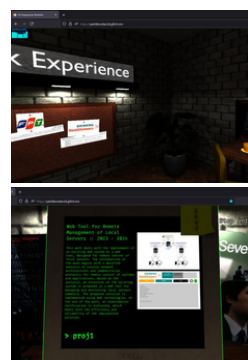
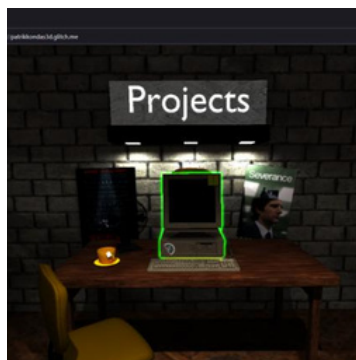


## INTERACTIVE 3D PORTFOLIO

JUN 2024 - AUG 2024

A Three.js-based 3D portfolio room that showcases my work in an immersive, interactive environment. The project emphasizes optimized models, materials, lighting, and rendering to ensure smooth performance and strong visual quality in a web-based environment.

**Skills:** Three.js, Blender, JavaScript, HTML, CSS



## MASS INFORMATION

APR 2024 - APR 2024

In collaboration with: Team Titanic

A Unity-based first-person 3D horror deduction game in which players investigate environments and collect evidence using information from the internet. The game was created in 72 hours as a submission to the **Facts Game Jam x Game Jam Košice**.

**Skills:** Collaboration, Unity Engine, C#

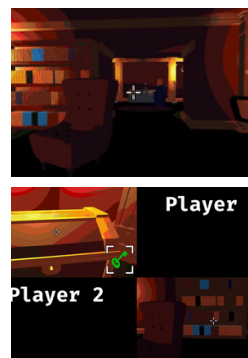
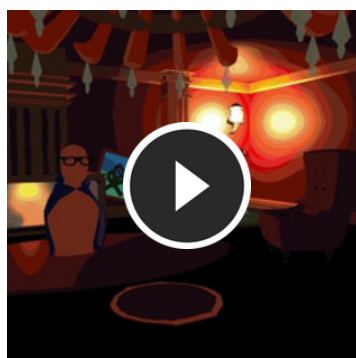


## ESCAPE ROOM

SEP 2023 - DEC 2023

A project featuring a NodeJS WebSocket and a Unity multiplayer game. The client handles most gameplay logic, while the server maintains active rooms and routes messages to the correct clients. Item interactions are also managed on the server to prevent item conflicts. Players can create a lobby from the main menu, join, and start once both are ready. The game focuses on cooperative communication and puzzle solving.

**Skills:** Unity Engine, C#, Node.js, Websocket, Blender



## STRANDED LANDS

SEP 2020 - JUN 2021

In collaboration with: Samuel Smolik

A project featuring a Unity\* 2D top-down survival game for Android. The world is procedurally generated from predefined rooms. Core systems include day-night cycles, random world events, enemy AI with unique attack patterns, and a perk tree that lets players unlock upgrades.

**Skills:** Collaboration, Krita, Unity Engine, C#

