

BLAŽ ČERPŃJAK

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Software engineer with 4+ years of experience across native Android, backend, and game development, with active side projects. Master's in Informatics and Data Technologies with a thesis on AI-driven NPCs in VR.

A LITTLE BIT ABOUT ME

Since childhood, I have been passionate about creating and learning new things. What started with video editing and website development in elementary school grew into developing mobile apps and games in secondary school, several of which I published on Google Play. That same curiosity and enthusiasm drive my work today, across both professional and personal projects, where I'm always exploring new technologies. I especially enjoy software architecture, brainstorming ideas and optimization. More than anything, I value good energy among colleagues and a culture of continuous learning. Outside of work, I play piano and run.

WORK EXPERIENCE

I.T. TIM – Software Engineer | April 2022 – Current

- [Imprion PoS](#) – Android client (Java, RoomDB, SQLite) – Built an offline-first point-of-sale and cash register app for tablets and phones, with real-time and background gRPC sync. Integrated five card payment providers (Besteron, Worldline, MyPOS, Hobex, EllyPOS/Lab4Pay), Wolt delivery and Venuo. Optimized performance for low-end Sunmi devices. Mentored and onboarded a new team member.
- [Imprion PoS](#) - backend & Windows register (Go, MongoDB, BoltDB, Vue.js) — Contributed backend and Vue.js frontend work for the Windows cash register variant. Fixed bugs and developed features.
- [Imprion PoS](#) – ESC printer library (Java) — Maintained and extended the in-house printer library; modularized the package structure, decoupled legacy code, shipped features, fixed critical bugs, improved performance and reliability.
- Imprion Time Terminal (Android, Kotlin) – Built an NFC-enabled tablet app for employee attendance tracking with gRPC sync.
- [ConnectiCom MDP TV](#) (Android TV) – Implemented EPG playback with fast-forward and rewind, built a reusable EPG view component, added watch statistics tracking, and fixed bugs across the Android TV app.
- Astero – Komari Beverage (Android, Kotlin) – Built an offline-first beverage-sales monitoring app with gRPC sync.

- Internal Android tooling (Kotlin, Jetpack Compose) — Built three internal libraries used across the team: a QA/support tool for installing and managing CI/CD APKs, a SQLite inspection library for faster debugging, and a floating-window logging library.

OUTFITZ – Software Engineer | December 2024 – December 2025

- [Talking Tom Remaster](#) (Unity/C#) – I've worked in an agile and fast paced development team. We had to deliver the game in just a few months. Owned features like voice recording and talk back, rewarded ads integration, the game's UI layer, animation wiring, and BigQuery analytics events. Worked daily with QA and the art team to triage and resolve bugs through launch.
- [Talking Ginger Playground](#) (Unity/C#) – First project at Outfit7. Learned internal development workflows and project's action-driven architecture. Started by fixing bugs, then moved on to feature development.
- [My Talking Angela 2](#) (Starlite/C++) – Bug fixing and smaller feature development in Outfit7's proprietary game engine Starlite and C++.

EDUCATION

FACULTY OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, UNIVERSITY OF MARIBOR

Master's degree, Informatics and Data Technologies | 2023 – 2026

FACULTY OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, UNIVERSITY OF MARIBOR

Bachelor's degree, Computer Science and Information Technologies | 2020 – 2023

SECONDARY VOCATIONAL AND TECHNICAL SCHOOL MURSKA SOBOTA

Computer Science Technician | 2016 – 2020

TECHNOLOGIES I'VE WORKED WITH

MOBILE DEVELOPMENT

Android (Java & Kotlin)

Flutter (Dart)

Swift

Jetpack Compose

FRONTEND DEVELOPMENT

Vue.js

Nuxt

JS/TS

BACKEND DEVELOPMENT

Go

Spring Boot/Quarkus (Java & Kotlin)

Nest.js (Typescript)

Node.js

DATABASE

SQL

SQLite

PostgreSQL

MongoDB

BoltDB

DEVOPS

Docker

Github Actions

GitLab CI/CD

GAME DEVELOPMENT

Unity (C#)

LibGDX (Java)

Starlite (C++)

PUBLICATIONS

THE IMPACT OF LOCAL AND CLOUD BASED INTELLIGENT NON PLAYER CHARACTERS ON THE USER EXPERIENCE IN VIRTUAL REALITY

(MASTER'S THESIS)

2026 | [Thesis](#)

Researched how AI-driven NPCs shape user experience in VR. Built a VR cooking game (Unity) featuring a voice-interactive NPC that assists the player, implemented in two variants: a local ML model running via Unity Sentis and ONNX, and a cloud variant using the OpenAI API. Conducted a user study with students comparing the two on immersion, perceived assistant quality, and engagement.

DEVELOPING AN INTELLIGENT OPPONENT FOR A SHOOTER COMPUTER GAME (BACHELOR'S THESIS)

2023 | [Thesis](#)

For my thesis, while completing my bachelor's degree in Computer Science and Information Technology, I researched and developed an intelligent opponent in a 3D shooting computer game. I developed the intelligent adversary in the Unity game engine using the Finite State Machine system.

PERSONAL PROJECTS – MACHINE LEARNING

“ENDURRO AI”

2026 | [EndurroAI](#) (Nuxt 4, TypeScript, Go, MongoDB)

Training-assistant web app integrating Strava and OpenAI. Generates personalized AI training plans from an athlete's activity history and offers a "coach" chat for training questions and advice. Includes performance analytics, activity history, and a dashboard.

“PREDICTING TRAFFIC FLOW ON SLOVENIAN HIGHWAYS”

2024 | [GitHub](#)

This project aims to predict travel times and vehicle counts on Slovenian highways. It features a frontend web app (built with Vue 3) where users can see the predictions for different locations, and backend that automatically gathers travel times, vehicle counters and weather data from various APIs. The data is preprocessed and used to train multiple machine learning models, which are automatically evaluated and deployed through GitHub Actions.

“PREDICTING STUDENT DROPOUTS”

2024 | [GitHub](#)

This project demonstrates implementation of an MLPClassifier and Scikit-learn pipeline to predict student dropout (“yes” or “no”) based on various factors such as grades, family income and more.

PERSONAL PROJECTS – WEB AND BACKEND DEVELOPMENT

“SCRAP SNAP”

2024 | [GitHub](#)

I collaborated with two friends to develop a Progressive Web App (PWA) designed to revolutionise waste management and enhance community cleanliness during my master's degree studies. (NestJS, Typescript, VueJS, MongoDB, Minio, Docker)

“FOOD ORDERING SYSTEM USING MICROSERVICE ARCHITECTURE”

2024 | [GitHub](#)

This project serves as an example of microservices architecture, featuring multiple APIs built with Go and Kotlin (using Quarkus and SpringBoot). It also includes React-based web app.

PERSONAL PROJECTS – GAME DEVELOPMENT

“CHARLIE THE MONSTER” | OUTFIT7 TALENT CAMP 2024

2024 | [More](#)

During the game jam, I had the opportunity to meet some incredible people. My team and I created a game called Charlie the Monster, where you play as a fluffy toy tasked with destroying toy buildings and defeating fierce cardboard soldiers. The game was developed using Unity engine in around 2 and a half days

“CHARLIE THE MOUSE” | 3D MOBILE GAME (UNITY)

2023 | [Google Play](#) | [App Store](#)

3D endless runner game where the little mouse Charlie is trying to escape from a human and trying to eat as much sweets on the go as possible. The game is available on Google Play and the App Store.

“AURORA THE MAGE” | 3D MOBILE GAME (UNITY)

2022 | [Google Play](#) | [App Store](#)

I developed the mobile game "Aurora the Mage" in Unity to learn a new tool. It is a 3D endless runner game where the Aurora is trying to escape evil forces. The game is available on Google Play and the App Store.

“PAWS BEFORE THE STORM” | BRACKEY’S GAME JAM 2024

2024 | [Itch.io](#)

This was my first game jam entry. I joined to experience what game jams are like. The theme was “Calm before the storm”. I created a game where you play as a dog, guiding farm animals to safety before the storm hits. Each level brings more animals.

“NIGHTFALL: ZOMBIE SURVIVAL” | 3D MOBILE GAME (UNITY)

2023 | [Google Play](#) | [App Store](#)

This is a 3D zombie survival game for mobile/tablet devices, where you need to survive as long as you can against hordes of zombies.

“NORBY THE ALIEN” | 2D MOBILE GAME

2019 | [Google Play](#)

I developed the mobile game "Norby the Alien" during my education at SPTŠ Murska Sobota. It is a 2D endless runner game where the player must avoid enemies and other obstacles and survive as long as possible. I published the game on the Google Play Store.

PERSONAL PROJECTS – ANDROID DEVELOPMENT

“BE PRODUCTIVE”

2022 | [Google Play](#)

App for boosting your focus and productivity with focus time tracker and task management.

“MY PARKINGS”

2021 | [Google Play](#)

A GPS-enabled app for tracking parking time and locating your vehicle.

“FITLAJF”

2019 | [Google Play](#)

During my studies at the Secondary Vocational and Technical School Murska Sobota, I developed the mobile application "FitLajf" as part of my 4th year product. The app was developed in the Android Studio environment for Android devices. Later I also published it on the Google Play store.

PERSONAL PROJECTS – IOS DEVELOPMENT

“LUMINO FLASHCARDS VR” (VISION OS)

2024 | [App Store](#)

I wanted to explore new VisionOS technology, so I developed a simple flashcards app using Swift and SwiftUI.

“MY LANDMARKS APP”

2022 | [GitHub](#)

I wanted to learn how to develop an iOS app using Swift and SwiftUI, so I created this simple app for tracking landmarks.