

Luka Čupić

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LinkedIn · GitHub

PROFESSIONAL SUMMARY

An endlessly curious software engineer improving society through technology.

WORK EXPERIENCE

Unbiased

Apr. 2026 – Present

Founder & Developer

Remote

- Founded and created Unbiased, a mobile app for recognizing cognitive biases and logical fallacies through short lessons, practical examples, and interactive exercises. The app is multi-platform and available on both iOS and Android.
- Led the product from the first line of code to launch and single-handedly handled all aspects including system architecture, mobile development, backend engineering, database design, UI/UX, content strategy, branding, monetization, and publishing.
- Researched and created brand new educational content in psychology and critical thinking, combining lessons and practical examples with various games and puzzles.
- Designed the app's UI and UX with a strong focus on clarity, aesthetics, and usability.
- Implemented a freemium monetization model with subscriptions, lifetime purchases, and regional pricing.
- Led alpha, beta, and early-access testing, using user feedback to improve functionality and UX.

AgrAI Biotech

Sep. 2024 – Jun. 2026

Machine Learning & Full-Stack Engineer

Zagreb, Croatia

- Spearheading the development of a machine learning-based software solution to optimize biogas production, enhancing process efficiency and sustainability in the biodigestion process.
- Developing predictive models to anticipate changes in key health indicators and biogas production, leading to a more efficient allocation of raw materials and improved plant performance.
- Designing a user-friendly graphical interface displaying real-time predictions and recommendations, enabling effective material management and operational decision-making for end users.

Shenandoah Ag Tech

Jan. 2025 – Mar. 2025

System Architecture & Backend Engineer

Remote

- Engineered a fully dockerized backend architecture for an agricultural mobile app, featuring a Node.js API, SQL database, and Caddy reverse proxy, designed for effortless scalability, streamlined lifecycle management, and highly simplified deployment.
- Designed secure infrastructure architecture with hardened SSH, container isolation, and strict authentication.
- Implemented security-first deployment model with Dockerized services and reverse proxy.

Solo

Jul. 2024 – Jan. 2025

- Rebuilt the entire Solo mobile fiscal app from the ground up using Flutter, creating a seamless experience for Android and iOS devices with a single codebase.
- Developed a robust communication protocol with efficient error-handling for connecting the mobile device with point-of-sale (POS) printers via Bluetooth Classic and Bluetooth Low Energy (BLE).
- Added support for a wide range of printers through lower-level modules custom written in Java and Swift. These modules offer the backbone of printer connectivity which is encapsulated with a simple and robust API on the Flutter level. This allows end users to connect their printer to the app and print receipts through a clean and intuitive UI.
- Implemented a caching mechanism for storing relevant user data that will get refreshed if older than a certain time frame.
- Optimized app speed and performance, improved error-handling, and resolved several legacy issues, resulting in a more efficient and stable application.

OpenNovations

Oct. 2022 – Jan. 2025

*Full-Stack Developer & Database Engineer**Remote*

- Worked as a full-stack and database engineer on Aranei, a healthcare-oriented information management platform.
- Migrated gigabytes of client data and corresponding Python codebase from older text formats to a modern PostgreSQL database, ensuring data integrity through comprehensive verification.
- Conducted medical IT research for data management and storage solutions, contributing to the platform's reliability and efficiency.
- Expanded product functionalities by optimizing backend PHP code in the Symfony framework and frontend code in React.js, both of which improved system stability and reduced errors.
- Performed multiple data import projects, analyzing, cleaning, and verifying customer data from various sources before successful integration into existing systems.

CharlyOCR

Sep. 2023 – Sep. 2024

*Founder & Developer**Remote*

- Founded and developed CharlyOCR, a fully functional OCR platform, creating a proof-of-concept SaaS from scratch using Bootstrap and Node.js.
- Architected and built the server infrastructure including automated mailing system, and integrated a payment processor for handling digital transactions and tax compliance worldwide.
- Designed a minimalist and user-friendly UI/UX, enhancing the platform's accessibility and clean user experience.

Sanctuary Adignani

Jun. 2022 – Oct. 2022

*Sole Developer, Designer & 3D Artist**Vodnjan, Croatia*

- Created a 3D virtual underground crypt for the St. Blaise's Church in Vodnjan, called Sanctuary Adignani.
- Collaborated with the priest and the project's lead architect to create a full interior design of the crypt, including relics and various pieces of artwork.
- Implemented a custom first-person controller system for navigating through the crypt.
- Captured, edited, and retouched all digital imagery used in the project.
- Applied the technique of photogrammetry for digitally recreating the incorrupted bodies of saints in the virtual 3D environment, totaling 870 different images, taken from various angles.
- Optimized lighting, shadows, polygons, and GPU draw calls (texture baking), achieving 60 FPS on high-end and 30 FPS on low-end devices.

Innential

Mar. 2021 – Sep. 2021

- Worked as a remote full-stack developer on a personalized education platform built on the MERN stack
- Contributed to product direction and technical decision-making alongside the core team
- Co-managed release and deployment cycles across development and production environments
- Designed and implemented frontend and backend features using React.js, Node.js, GraphQL, and MongoDB
- Improved data modeling and NoSQL database design to support personalized learning flows

Radboud Faculty of Science

Sep. 2019 – Jan. 2020

*Co-Creator & Developer of Dragonfly**Nijmegen, The Netherlands*

- Co-created Dragonfly — a startup file-sharing service at the Radboud University's incubator.
- Spearheaded the development of the project in Java and implemented the codebase, the main server, user database, desktop application, and the Android application.
- Implemented a custom TCP-based communication protocol and file transfer system in Java.
- Designed the user interface for desktop and mobile application (UI/UX Design).
- Co-developed business and marketing strategies for launching the product to the public.

EDUCATION

Master's in Computer Science

Jul. 2018 – Jul. 2020

*FER, University of Zagreb**Zagreb, Croatia***Master's in Computer Science (Erasmus+)**

Aug. 2019 – Jan. 2020

*Radboud University Nijmegen**Nijmegen, The Netherlands***Bachelor's in Computer Science**

Jul. 2015 – Jul. 2018

*FER, University of Zagreb**Zagreb, Croatia*

SKILLS & TECHNOLOGIES

Skills: Software Architecture, Full-Stack Development, Mobile App Development, Audio Engineering, Software Security, REST API Development, Design Patterns, SOLID, Test-Driven Development, Automation & Scripting, DevOps, CI/CD, Database Design, UI/UX Design, Machine Learning

Technologies: Java, Python, C, Android, Flutter, Dart, JavaScript, TypeScript, Node.js, Express.js, React.js, Three.js, TensorFlow, Keras, SQL, NoSQL, PostgreSQL, MySQL, MongoDB, Docker, Git, Firebase, PHP (Symfony), Haskell, Linux, Unix, Bash

INTERESTS

 Writing Meditation Reading Guitar Karate Backpacking Engineering Leadership Astronomy Motorbike