Marko Ljuboja

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EDUCATION

DePaul University, Jarvis School of Computing & Digital Media, Chicago, IL Graduating November 2025
BS in Computer Science, Software Development Concentration, Spanish Minor, GPA 3.71
Relevant Coursework: Data Structures I & II, Design & Analysis of Algorithms, Systems I & II, Global Software Development

SKILLS + STRENGTHS

Technical
- **Programming Languages:** Java, Python, C, C++, SQL, JavaScript, R
- **Web & Mobile:** HTML, CSS, React.js, Node.js, REST APIs, Swift (UIKit and SwiftUI)
- **Tools & Technologies:** SQLite, Git, Docker, Unix/Linux, PuTTY, JUnit 5, Gradle, Maven, Vercel, Google Cloud

Soft Skills
- Strong leadership, effective communication, team collaboration, results-driven, self-disciplined, fast learner

Languages
- English (native), Serbian (native), Spanish (working proficiency)

PROJECTS

Serbian-English Dictionary iOS App – Releasing on App Store OCTOBER 2025
- Developed a full-stack Serbian-English dictionary iOS app using SwiftUI, featuring bidirectional translation, dual script support (Cyrillic/Latin), and advanced search functionality with SQLite database integration.
- Engineered custom UI components, implemented iOS widget support, and alphabetical navigation.

Northern Trust Hackathon Project - 3rd Place of 15
- Designed a comprehensive foreign exchange trading platform using React that integrates real-time currency conversion, trading simulation, and predictive analytics.
- Built an interactive interface with portfolio tracking, trade history, and real-time exchange rate data via API integration.
- Implemented an LSTM (Long Short-Term Memory) machine learning model to predict currency exchange rate trends and identify optimal trading opportunities. Data is visualized with Chart.js.

Stem Player iOS Application
- Created an iOS app that takes YouTube links from users, processes the audio into 4 separate tracks ("stems"), and enables users to manipulate the separated tracks.
- Engineered synchronized multi-track playback using AVAudioPlayer for precise control of each isolated track.
- Constructed a background processing system with Flask microservice for audio stem separation using Demucs neural network, processing songs in ~1.5x song length.

ACTIVITIES

DePaul Serbian Cultural Club   January 2024 - Present
President
- Lead the planning and execution of cultural events, managing budgets and fundraising efforts to support community.

DePaul Orthodox Christian Fellowship   October 2022 – Present
Member
- Participate in community service projects, fostering group engagement and contributing to local charitable initiatives.

DePaul Computer Science Society   October 2022 – Present
Member
- Compete in software development hackathons and network with industry professionals at guest speaker events.