

# Mihai-Andrei Luca

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## Education

### University of Bucharest

Oct. 2024 - July. 2027 (expected)

*Bachelor in Computer Science*

*Bucharest, Romania*

- **Relevant Coursework:** Data Structures and Algorithms (C++, Python), Object-oriented programming (C++), Web development(HTML, CSS, JavaScript)

## Experience

### JetBrains Hackathon

Apr. 2025

*React.js, TailwindCSS, JavaScript, Vite, OpenAi API*

*Bucharest, Romania*

- Developed a pseudocode interpreter with React.js, TailwindCSS, JavaScript, Vite, and OpenAI API, awarded 2nd place out of 20 teams at the JetBrains Hackathon for its innovation and educational impact.
- Achieved 60% student usage among those we presented to by implementing a C++ transpiler, syntax validation, and an intuitive UI that simplify the transition from pseudocode to real code.
- Enhanced the learning experience with an AI-powered error corrector, real-time Big O complexity analysis, and step-by-step execution visualization, receiving strong feedback from judges and students.

## Projects

### Offline Games | C++

- Developed a C++ console-based game featuring two main games (Wordle++, Globle++) and four mini-games (Capital, Population, Flag Color, and Currency), designed for engaging offline play.
- Integrated the Haversine formula in Globle++ to compute geographic distances between countries, delivering precise hints and adding an educational component that increased player engagement.
- Earned official recognition in the University's Object-Oriented Programming project rankings, where the game was showcased by the professor and played by 70% of students in the course, highlighting both technical quality and strong user appeal.

### AgriTech - Google Hackathon | Kotlin, Sparrow IoT Device

- Developed an Android and WearOS application at the Google Hackathon that integrates with a Sparrow IoT device to provide real-time monitoring of environmental data (temperature, pressure, air quality, luminosity).
- Built custom algorithms to analyze sensor data and evaluate garden health, delivering instant feedback ("Good"/"Bad") and optional alerts, improving user awareness of environmental conditions.
- Delivered a cross-platform solution with a clean Material Design UI, enabling seamless monitoring on smartphones and smartwatches and demonstrating strong skills in Android (Kotlin), WearOS, and IoT integration.

## Extracurriculars

### Management and Fundraising

Nov. 2024 – Present

*Association of Students in Mathematics and Computer Science*

*Bucharest, Romania*

- Managed partnerships with IT companies for the Faculty Job Fair, ensuring participation and visibility at an event that reached 1,000 students in person and 32,500 students online.
- Coordinated management and fundraising for ASMI Days, securing sponsorship partnerships by contacting companies and contributing to an event attended by 500 students.
- Strengthened soft skills in communication, negotiation, teamwork, and event coordination, while successfully building relationships with corporate partners and supporting large-scale student initiatives.

## Technical Skills

**Languages:** English - Advanced (C1), German - Intermediate (B1), Romanian - Native

**Programming Languages:** Python, C++, HTML, Javascript, Assembly x86, SQL, Kotlin, Shell

**Technologies:** React.js, TailwindCSS, Vite, ASP.NET, Node.js, Android SDK, WearOS, OpenAI

**Concepts:** Object-oriented programming, Big O Complexity Analysis, User Interface Design, , Design Patterns, Problem-Solving & Debugging