# Pojoga Dragoș-Florin

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#### Education

## **University of Bucharest**

Expected July 2026

Bachelor of Science in Computer Science

• Relevant coursework: Computer Systems Architecture, Operating Systems, Computer Networks

## **Skills**

Languages: C++, C, Python, JavaScript, TypeScript, Java, Bash, Make, SQL & PL/SQL (Oracle)

Developer Tools: Git, Linux, Podman, Nix, Markdown, MT<sub>F</sub>X, Docker

Experience with: Zig, x86 & RISC-V assembly, CMake, SQLite, Smali, OpenGL, Vulkan, Dear ImGui,

HTML, CSS, C#, Haskell, Lua, beautifulsoup4, PvOt6, Matplotlib,

Django, Node.js, PostgreSQL, Express

Interested in: systems programming, compilers, high-performance compute,

embedded, automation, tool development, graphics programming

Spoken Languages: Romanian (native), English (C2)

# **Projects**

### **2D** Graphics Library | C++, OpenGL

- $\bullet$  Developed a lightweight 2D graphics library that simplifies console-to-GUI game conversion, reducing implementation time by 70%
- Engineered an efficient array-to-graphics rendering system supporting custom color palettes and automatic scaling
- Integrated development tools including a profiler and debug mode, improving the development workflow

## Interactive R Graph Visualizer | Python, R, PyQt6

- Developed a cross-language visualization tool that bridges Python and R, enabling real-time mathematical function exploration
- Engineered a dynamic parameter system using PyQt6, allowing users to manipulate function parameters through interactive sliders
- Designed an intuitive UI that maintains full R environment capabilities while providing modern GUI controls for enhanced user experience

# Real-time Voice Translation System | Python, OpenAI Whisper, DeepL, VOICEVOX

- Implemented low-latency audio processing pipeline achieving <2s time from speech to synthesized output
- Engineered modular architecture with separate components for audio recording, translation, and voice synthesis

#### **3D Graphics Renderer** | C++, OpenGL

- Engineered a custom 3D rendering engine using modern OpenGL, implementing forward rendering pipeline and ECS architecture
- Developed optimized graphics systems including dynamic lighting, custom shader management, and efficient batch rendering
- Integrated performance profiling tools and achieved 60+ FPS rendering with multiple light sources and complex geometries

## Automated Linux Distro Installer | Bash, Arch Linux, Fedora Linux

- Engineered a Linux installation framework in Bash that reduces 4+ hours of manual setup to 30 minutes
- Implemented modular shell scripts with comprehensive error handling, achieving 100% automated system configuration

#### **Discord Bots** | JavaScript, TypeScript, Node.js, Discord.js, Youtube API

- · Created 4 Discord bots implementing modular architecture and event-driven design patterns
- Each bot served a different purpose and was a self contained project allowing for easy maintenance without bringing down all services