Matei-Cosmin Drăgușin

📞 +40763360226 | ✉ matei.dragusin11@gmail.com | 🔗 linkedin.com/in/mateidragusin

🔗 github.com/Matei-Dragusin

Education

Polytechnic University of Bucharest   Oct 2022 – June 2026
Faculty of Automatic Control and Computer Science, BS in Computer Science   *Bucharest, Romania*

Projects

BitTorrent Protocol Implementation
- Implemented a distributed BitTorrent-like protocol using MPI and Pthreads for peer-to-peer file sharing
- Developed a multi-threaded client architecture with separate download and upload threads for efficient file transfer
- Created a tracker system to coordinate swarm management and peer discovery
- Implemented efficient load balancing for segment distribution across peers to optimize network utilization
- Tools Used: C/C++, MPI, Pthreads, Distributed Systems, P2P Protocols

Drone Delivery Game
- Developed a 3D drone delivery game with third-person camera perspective using OpenGL and C++
- Implemented procedural terrain generation with height-based coloring and obstacle placement
- Created a package delivery system with collision detection and dynamic package attachment
- Designed an intuitive UI with minimap and directional indicators for improved navigation
- Tools Used: C++, OpenGL, GLSL Shaders, 3D Graphics Programming

IMDB Application
- Designed and implemented a comprehensive IMDb-like platform that allows users to manage and interact with an extensive movie database
- Implemented advanced search and filtering functionality for movies, actors, and directors based on multiple criteria
- Created a robust rating and review system allowing users to rate movies and provide detailed reviews
- Tools Used: Java, OOP Principles, Collections Framework

Network Router Implementation
- Developed a software router implementing core networking protocols including IP forwarding and ARP
- Built comprehensive error handling with ICMP message generation for network troubleshooting
- Designed and implemented efficient packet parsing and routing table management
- Tools Used: C, Network Protocols (IP, ARP, ICMP)

Technical Skills

Languages: C, Assembly, Java, C++, Racket, Rust
Concepts: Data Structures, OOP, Algorithms, Networking and Protocols