

# Darius Bălănică

## Education

- 2020-2022 **Master's Degree in Information Technology Management.**  
(Currently) University Politehnica of Bucharest, Faculty of Automatic Control and Computer Science
- 2016-2020 **Bachelor's Degree in Computer Science.**  
University Politehnica of Bucharest, Faculty of Automatic Control and Computer Science  
Specialization: Systems Programming  
Bachelor's Thesis: **9.63 / 10** (1-10, higher is better)

## Experience

- Jul – Sep **Software Developer Intern (Java), Thales Systems Romania.**  
2019 Implemented and integrated a custom log player from scratch into a HMI (Human Machine Interface) platform for railway control systems. The project involved several Eclipse plug-ins that handle communication over a proprietary protocol over UDP, standalone player features and an intuitive graphical user interface.
- Jul – Sep **Software Engineering Intern (C/C++), Avira Romania.**  
2018 Contributed to the development process of a cross platform embedded anti-malware SDK (SAVAPI), including the implementation of a wrapper over the scan engine (used to link low-level and high-level modules together), improvement of the existing features, designing new functionalities and code analysis.

## Projects

- 2020 **Riddles of Madnes - C#, Unity.**  
**Bachelor's Thesis. Advisor: Florica Moldoveanu, Computer Graphics Laboratory**  
Educational 2D open-world adventure game, with a solid level design and complete control mechanisms. The game challenges its players to a foray into a new world in which the knowledge gained during college years will be put to the test to prove that they have all the strengths and qualities required for being a great engineer.
- 2019 **Crowdsensing System Simulator – Python.**  
Implemented a virtual environment where several mobile devices could collectively share data and extract information related to noise pollution to measure and analyze various pollution levels.
- 2018 **Stdio Library – C.**  
Custom implementation of stdio.h, the C standard library used to perform input/output operations such as: file access, direct input/output, unformatted input/output, file positioning and error handling.
- 2018 **Bot for the Halite 2 AI Competition – Java.**  
Worked in a team of four people to develop a bot capable of playing Halite, an AI battle game. Involved in the development process, implementing both offensive and defensive strategies to win the game.
- 2017 **League of OOP – Java.**  
Basic development of a MMORPG-style game, where each character has well determined moves and actions while populating a map in a rounds-based gameplay mechanism simulated within the program.
- 2016 **Mini Photoshop – C.**  
Minimalist image editor that implements several image processing features on BMP images along with a lossy compression and decompression functionality that transforms the image into a binary file.

## Technical Skills

Programming Languages **Java, C, Python, C#, C++, Bash**, Php, Assembly (x86), Racket, Haskell, Prolog, Matlab

Other Linux, Git, Bitbucket, Eclipse RCP, Eclipse SWT, Jface, Docker, WebSocket, Unity, HTML, Visual Studio, SQL (MySQL, PISql), Magento, Grafana, Agile methodology, Scrum

## Languages

**Romanian** (native), **English** (fluent), **French** (basic)