

ALEXANDER BORDEAUX

*Titulaire d'un visa de long séjour,
ayant le permis de travail.*

CONTACT

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INTERESTS

- ▶ Physics and Computer Science
- ▶ PC and Electronics enthusiast
- ▶ Video Games Development
- ▶ Biology and medicine
- ▶ Tabletop RPGs

DIPLOMA PROJECT

Utilizing Unity and C# to develop a Battle Royale Multiplayer VR game. Extensive research on crowd simulation and path-finding algorithms and the integration of advanced technologies like ML and deep learning models to enhance the game experience.

LANGUAGES

Hebrew: native

Ukrainian: native

Russian: native

English: fluent

French: beginner

HIGHLIGHTS

- ▶ Designed and developed IDS from scratch for heavy vehicle fleets, ensuring seamless communication with a Secure Operational Center. Deployed the solution in an embedded Linux environment.
- ▶ Integrated Suricata IDS into the Arilou solution, deployed it on Linux Yocto, authored custom layer 3 attack rules, and achieved a successful proof of concept for EcarX (Tier 1).
- ▶ Developing and maintaining EnSite X EP, a real-time software solution developed at Abbott for Electrophysiology (EP) procedures. It enables medical professionals to accurately map and navigate the heart's electrical activity during surgeries, crucial for the diagnosis and treatment of cardiac arrhythmias.
- ▶ Accumulated 3 years of experience in software development within the Embedded Linux, cybersecurity, and MedTech domains. Proficient in modern C++17 and Python programming languages.
- ▶ Electrical Engineering BSc: Computers and Image Processing specialization.

EXPERIENCE

Since 2024 Software engineer, Abbott Electrophysiology Dept. – Israel

- ▶ Develop and maintain real-time software solutions for Electrophysiology procedures, specializing in integrating advanced 3D mapping technologies.
- ▶ Utilize Qt framework, OpenGL, Python, and C++17 for GUI design, rendering, and new catheter support.
- ▶ Implement integration features for ultrasonic catheter imaging to enable real-time visualization of internal heart structures during surgeries.

2021 – 2023 Embedded software engineer, SheeldS – Tel-Aviv, Israel (Formerly Arilou Automotive Cybersecurity)

- ▶ Spearheaded the development of a cutting-edge automotive Intrusion Detection Prevention System from scratch using Python, supporting CAN, Ethernet, and J1939 protocols on embedded Linux platforms (Yocto, Linux).
- ▶ Expertly executed the migration from Python to C++, encompassing a comprehensive redesign and seamless integration of novel functionalities.
- ▶ Assumed the role of tech lead for the embedded team, infusing advanced technologies and best practices through meticulous research.

EDUCATION

2017 – 2021 B.Sc. Electrical Engineering, Afeka College of Engineering Majors in Computers and Image processing – Tel-Aviv, Israel

ARMY

2012 – 2015 IDF Operations room Sergeant, Israel

SKILLS

C/ C++ (17)	SQL / NoSQL	Git
Python	SDL	Docker
QT	Linux	Unity
Lua	OpenGL	Unreal
CMake	AUTOSAR	HLD/LLD
Shell script	Embedded Linux	OOP/OOD
Experienced in Protocols: MQTT, CAN, J1939, Ethernet Layers 2-4		

LINKEDIN



@alexbordeaux

GITHUB



@malekith3

PORTFOLIO SITE



Alex Bordeaux