ION - DANIEL **VOICULESCU**

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WORK EXPERIENCE

Harman International, Bucharest — *Software Engineer*

AUGUST 2021 - PRESENT

Working on a project which enhances the capability of the communication and interoperability of cars.

- Create and maintain specific ECU which provides **secure communication** with different servers for telematics, statistics and control, using the latest protocols (**MQTT, CAN, LIN**) respecting **AUTOSAR** standard.

NortonLifeLock, Bucharest — *Software Engineer*

APRIL 2021 - JULY 2021

Worked on a project that provides to users a backup solution for their files. The delivery must expose a clean **C interface** with little to none dependencies.

- The main core of the engine was developed using **C++** and **APIs** provided by the supported **backup storage services**.
- My work was to design and adapt the interface and the architecture of the engine, filter needed dependencies (**curl, gzip, tinyxml2, easyjson**) supervise and implement the functionality.

Avira, Bucharest — *C++ Windows Developer*

JANUARY 2021 - APRIL 2021

Worked on project that allows the endpoint to enhance the performance of a category of the processes.

- It involved me to study and determinate the best **process optimization** technics (**process priority, I/O optimization, system oriented advices**).
- Create and update automated **test system** to determinate actual **performance boost** and **current limitations** of the feature.
- My work determined the system limitation, cover the testcase for regression verification and develop the primary optimization process. The project was implemented using **C++**, with a pure **C** interface. The automated testing system uses **Python** for test case definition.

BullGuard, Bucharest — *C++ Windows Developer*

MAY 2020 - DECEMBER 2021

Worked on a project which should maintain security of the current local network.

- It allows the user to know when and who is connected to the current **local network**, to see and block traffic activity and offer information about current incoming **threats** and possible **open vulnerability** of the machine.
- My work on the feature was to optimize current specification by using **multithreaded** technics, improve **diagnostics** logs implement **telemetry** for activity and overview.The feature is using **C++** under the hood with **Win32 API** for OS support, numerous **Nmap** property of network supervise, **GUI** using **Chromium Embedded Framework** (**CEF**).

Bitdefender, Bucharest — *Software Engineering Intern*

JUNE 2019 - DECEMBER 2019

Worked on a project which provides a highly maintainable and diagnisticable solution for current endpoint processes.

- Using specific data structure standards (**XML, JSON**) to create and adapt current logs to be easier to interpret and machine-interpretable for a very quick triage.
- My work was to implement the solution after discussions with a **support team** to find the best way to **diagnostic** current processes.

EDUCATION

University "Politehnica" of Bucharest, Bucharest — *Information Technology Management Master's*

Faculty of Automatic Control and Computer Science

OCTOBER 2020 — JUNE 2022

- **Undergraduate Coursework:** Startup Engineering, Accessing Non-Reimbursable National And European Funds, Information Management and Security, Intelligent Internet Systems, IT Management Of Business Processes, IT Project Management

University "Politehnica" of Bucharest, Bucharest — *Computer Science and Engineering Bachelor's*

Faculty of Automatic Control and Computer Science

OCTOBER 2016 - JUNE 2020

- **Undergraduate Coursework:** Numerical Methods, Data Structures, Introduction to Assembly Language, Programming Paradigms, Object Oriented Programming, Analysis of Algorithms, Algorithms Design, Performance Evaluation, Communication Protocols, Local Networks, Web Programming, Parallel and Distributed Algorithms, Software Project Management.

"Constantin Carabella" National College, Targoviste — *Mathematics and Informatics*

OCTOBER 2012 - JUNE 2016

- **Basic skills obtained:** Matematics, Informatics and Physics.

PROJECTS

Carillon — *Anti-Ransomware Tool*

Application for protecting a virtual computer network against **ransomware attacks**. The target platform of the application is **Windows** (Used technologies: **C, C++, C#, Python, Node.js, ReactJS, Kafka, Docker, Kubernetes**).

ShapeshifterCLI — *Image Editor*

Resize (using **SSAA**), compress and decompress, crop, fill and applies filters (blur, edge detector, black and white) using a distributed system for dividing pictures into pixel matrix (Used technologies: **MPI, C**).

imDifferent — *Sentry Turret*

Create a dual-turret sentry using **ATmega324** microcontroller with stepper motors and a camera for computer vision, adjusting camera deviation and processing computer vision algorithm with **USART** comunication. (Used technologies: **C, ATmel Studio, OpenCV**).

Other projects:

Kermit file transfer protocol (**C**), memory allocator simulator (similar with **malloc/calloc** function in C), Tic-Tac-Toe in **Matlab**, Brick Breaker (**OpenGL/C++**), Internet Banking and Stock exchange simulation (**TCP** and **UDP** sockets, **Java**, design patterns: **singletone, visitor, factory** and **observer**).

PROGRAMMING LANGUAGES AND TECHNOLOGIES

Good:

- C++ POSIX/Win32, C++03/11/14, Python, Javascript

Medium:

- ReactJS, VueJS, Java, Bash, Linux

Begginer:

- Arduino, Raspberry Pi, Haskell, Prolog, Assembly

Experience and knowledge about: Atlassian suite (**JIRA, Confluence, Bitbucket, Bamboo**), Windows **driver** development, Web development (**HTML/CSS, SEO, TCP/IP suite**), Databases (**SQL, NoSQL**), Network administration, UNIX, Git, Kibana, Machine learning (**RNN, CNN, NLP, Clustering, Classification**), **Blockchain**.

LANGUAGES

Romanian (Native), English

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