

# Software developer

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## Summary

Senior Software Engineer with 11 years of experience in programming on different technologies like Automotive (Embedded C/C++) and WEB and Mobile (React Native, React, MongoDB, Node.JS, CSS). Full Stack Development in MERN Stack.

## Technical Skills

Languages: JavaScript, TypeScript, Python, C++, C

Frameworks: React, Node.js, Express, Next.js

Databases: PostgreSQL, MongoDB, MySQL

DevOps & Tools: Docker, Git, GitHub Actions, AWS

Others: REST, GraphQL, WebSockets, Agile

## Professional Experience

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| <p><b>November 2021 – Present, BSW TECH</b><br/><b>Position: WEB &amp; Mobile Developer</b><br/><b>Projects: <i>Electra, EBS and Volvo</i></b></p> |
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Software development on many projects for clients like **Electra, EBS** and **Volvo**. Full Stack Software implementation from Front End to Back End on Mobile variant and on WEB Portal variant for different projects.

- Front End implementation in React Native and even native implementation in Swift and Kotlin for functionalities that are not present in React Libraries like EXPO or CLI.
- Developed dynamic and interactive user interfaces using Bootstrap, CSS and JQuery for WEB SAAS applications. Delivered Responsive APIs.
- Implemented Front End according to Figma Design and Export from Figma. Collaborated with UI/UX team members. Implemented cross-browser compatibility.
- Software implementation of the back end in Node.Js of the features like Auth pages, Application flow, parsing and generation of the .xls documents, returning parsed .xls data to the front-end APIs.
- Database implementation in MongoDB and SQL, Experience with Elasticsearch. Implemented tables to store vehicle data like registration plate vehicle ID number, number of wheels etc. Tables for the verification data for TPMS system of the wheels.

- Kotlin and Swift native implementation for the push notifications on mobile versions.
- AWS deployment using Amplify for Bootstrap the applications on WEB.
- DevOps: Implemented CI/CD pipelines with GitHub Actions, reducing deployment times and minimizing human intervention errors.
- TPMS project implementation in React.JS and Bootstrap as cross-browser application as frontend WEB portal app.

Leading in Jira the team of 4 Software developers for the TPMS application that is a Cloud, Mobile and Web application fully implemented and designed by us.

### ***Interactive Charger Socket Project :***

Software implementation and Architecture of an Interactive Charger Socket. Design and Develop QM Software for the Charger.

- MCAL Configuration and generation for S32K144 NXP MCU.
- Architecture and definition of CAN messages in CAN DB++ tool. Definition of messages and signals, cyclic or not, from which ECU to which ECU. PDU Router Configuration.
- Software generation and implementation of Peripheral in S32 Design Studio for S32K144 MCU.
- Responsible by UART and I2C driver implementation and manipulation of Light via Melexis driver.
- SBC initialization and SPI driver development.
- Debug in TRACE32 & Lauterback

**November 2016 – February 2022, AROBS Software**

**Position: Team Lead, Senior Embedded C/C++ Developer**

**Project: Osram Geely Light Control [January 2022 – December 2022]**

Light Controll APP for Volvo/Geely cars headlight, Implementation of a SW redesign according to new HW for Volvo / Geely Lights project, based on AUTOSAR MCAL Configuration and generation for S32K144 NXP MCU.

- Adapt existing SW according to the HW schematic
- Fixing diagnosis DTC module after HW depopulation
- Develop new SW compliant with classic AUTOSAR
- Responsible areas : Light Controll, Fan Management, Led driver and Matrix
- Generation of MCAL in EB Tresos after HW Depopulation.

CANoe and WinIDEA(IC5000) used for debug

**Project: WaveX – IIC HMI Infotainment [January 2018 – December 2021]**

Maintenance & Development of a Linux Connectivity application in C and C++ / Qt

- Analysing and fixing Problem Reports (bugs). Code analysis.

- Quotation, estimation and development of new SW features.
- Main responsible for Diagnosis DTC Router, TSW, Application framework and Software Loading project
- UML diagram creation in Rhapsody for new Change Request Software
- Unit Test and MISRA for responsible areas : SWL, DIAG, TSW, SEM.
- C++ SW development under Linux Application.
- Testing under real environment on ECU + CANoe.
- Scrum activities in 0.5 allocation. Responsible by PI Planning, Sprint creation and planification with the team. Handling of daily ceremonu start and close sprint meetings, retrospective and clarification meetings.

#### **Project: Modular Test Bench [November 2016 - December 2017]**

Develop an Modular Intelligent Test Bench based on stm32 MCU used to simulate signals and pins of BCM.

**function:** Develop Embedded C applications using HAL driver on Cortex M MCU.

**job responsibilities:** Develop fully functional of project app on Cortex M MCU. Write libraries for ADC, PWM and more features. Implement generic part for signals simulation given to BCM.

#### **March 2013 - November 2016, ICEVO Consulting**

**Position: Embedded C Developer**

**Project: Quad and Xexa Copter**

**project purpose:** Develop a high speed delivery drone based on a new speed concept.

**function:** Embedded C developer. Provide fly tests with drone. Analyze experimental data in matlab

**job responsibilities:** Develop C programs direct on Cortex M MCU. Write libraries to access sensors like

Sonar, Barometer, IMU via I2C, USART protocols. Debug written function even in fly to understand behavior. Write scripts in Python and Matlab to parse fly tests experiments files. Load experiments data to matlab and simulate .

## **Education**

2010-2014. Technical University of Moldova:

Engineering and Management in Radio Electronics and Telecommunication

2018 -2020. State University of Moldova

Master Degree in Process Modeling and Information Technologies

## Certifications

- AWEB Development Bootcamp - 2021
- Golang Development - 2021

## Languages

- English: Fluent
- Russian : Fluent
- Romanian : Native