

Alexandru Coca

Profile

I graduated the English section of the Faculty of Electronics Telecommunications and Information Technology, Applied Electronics profile. I'm a persevering, self-motivated person, passionate of engineering and always eager to learn new things.

Employment History

Embedded software engineer, Arobs Transilvania Software, Cluj-Napoca

DECEMBER 2021 – PRESENT

- **Targetlink Model Modification:** Modified existing Targetlink models in accordance with detailed software requirements to ensure high quality and compliance.
- **Testing and Validation:** Performed unit testing, bench testing, and simulation management for robust software validation.

Tools & Technologies:

- Programming: C, TD5, DDS
- Tools: BTC, Enterprise Architect, Git/Gerrit, Matlab (with proprietary libraries)
- Version Control & CI: Utilized Git/Gerrit for version control and Jenkins for code building and continuous integration.

Internship, Arobs Transilvania Software, Cluj-Napoca

OCTOBER 2021 – DECEMBER 2021

Collaborated in a team of three to develop a light control module for car headlights. Responsible for controlling light leveling using a servo motor and managing a cooling fan for the headlights.

- **Microcontroller & Programming:** Developed the system in C using the STM32 Nucleo-144 and STM32CubeIDE for development and debugging, incorporating FreeRTOS for real-time task management.
- **Hardware Interfaces:** Configured ADCs for voltage readings, implemented timers for delays, and used voltage dividers for ADC compatibility.
- **Architecture & Standards:** Gained exposure to AUTOSAR architecture, applying industry standards in automotive software development.

BPS Technician assistant, Bosch , JUCU

JULY 2019 – AUGUST 2019

Implemented a VBA app that automatically sends a mail to the employees that have their work contract expired

Education

Master's degree, Electronics Engineering, Technical University of Cluj-Napoca, Cluj-Napoca

OCTOBER 2021 – JULY 2023

Faculty of Electronics, Telecommunications and Information Technology, Cluj-Napoca

OCTOBER 2017 – JULY 2021

Teaching in English, Applied Electronics department

"Tudor Vianu" National College of Informatics

Details

alexandru.coca@yahoo.com

Links

[LinkedIn](#)

Skills

Microsoft Office

Git

jQuery

JavaScript

SQL

HTML & CSS

PHP

Electronics

C/C++

Bootstrap

Matlab

Jira

Agile

Languages

English

Romanian

The Complete JavaScript Course 2022 From Zero to Expert!, Udemy

DECEMBER 2023 – FEBRUARY 2024

- **Successfully Completed:** Covered core JavaScript concepts, including variables, loops, functions, arrays, DOM events, OOP, and asynchronous programming (Promises, Async/Await, AJAX).
- **Additional Skills:** Gained experience working with APIs and ES6 features.

Personal Projects

Remodeling the site of UTCN's Romanasul folk ensemble

- **Objective:** Redesigned and enhanced the Romanasul website with a modern UI and improved functionality.
- **Backend:** PHP, SQL database.
- **Frontend:** JavaScript, JQuery, LESS CSS

Workout monitoring project

- **Objective:** Developed an app to display a map, mark workout locations, and display the workout details in a form.
- **Technology:** JavaScript, HTML, CSS

Hand tilt controlled robot car

- **Objective:** Created a glove-based control system to replace bulky remotes, simplifying drone operation for users with minimal experience.
- **Technology:** Implemented with an Arduino board, L293D motor driver, HC-05 Bluetooth module for wireless communication, and an inertial measurement unit (IMU) on the glove for gesture-based control.

Hand gesture controlled drone

- **Objective:** Designed a compact glove to replace traditional bulky remote controls, simplifying drone operation for users with minimal or no experience.
- **Implementation:** Developed the control system using an Arduino board, allowing intuitive and precise drone control through hand gestures.

Extra-curricular activities

Dancer, "Romanasul" Student Folk Ensemble, Cluj-Napoca

OCTOBER 2017 – PRESENT