

.ADTimandi

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Hello! I'm a creative software developer, with experience across a broad spectrum of technologies involving embedded programming, autonomous robotic engineering, industrial digitalisation as well as web development. My passion is to explore and develop cool ways to integrate software and hardware solutions intro practical applications with a meaningful purpose.



Accenture - Autonomous Robotics Analyst Feb 2023 - present (C/C++, Python, Linux, SAP, UR)

- Design and deploy industrial automation solutions for pharmaceutical industry.
- Prototype and develop health-tracking devices for medical sector, full product lifecycle
- Integrate low level machine communication with higher levels of enterprise execution systems.
- Virtualised and integrated server solutions as a unified platform
- Program and interact with industrial robotic arms, create custom routines and applications
- Explore, test and develop new ideas in a modern innovation lab
- Explore new potential solutions in a R&D lab, showcasing demo implementations
- Create and maintain product documentations, user manuals and additional informations

Quickleaf Technologies - Full Stack Developer Oct 2021 - Jul 2022 (VueJS, NodeJS, MongoDB)

- Worked in an Agile team of 5 devs based in Cluj and Amsterdam
- Along the process, my main focus was frontend oriented, implementing the design along with its change requests, but often having backend responsibilities as well.
- Used TypeScript to create high quality VueJS components, maintaining a scalable architecture.
- Maintained and optimised existing database, new data flows, integrate APIs and create automation scripts for various processes.
- Followed design patterns, good practices, provided feedback and kept the documentation up to date, keen on traceability.
- I had the opportunity to be involved, learn, implement and maintain the application architecture, as well as getting a good understanding of the full development lifecycle.
- Drafting periodic demos, negotiated feature implementation, possible optimisations and reworks.

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AROBS Transilvania Software - Embedded C Developer

May 2017 - Dec 2020 (C/C++, AUTOSAR, Linux)

- Worked in several outsourcing projects for automotive industry, taking part in multi-national teams of over 200 devs, in a CI/CD fashion .
- Developed and integrated a remote communication module, capable of monitoring, configuring and analysing car telemetry data in real time. (Linux, C++, MQTT)
- Worked close with the stakeholders in order to design, implement and deliver the automotive micro controller as
- Got in touch with most of the roles required for such projects, ranging from coding, planning, managing and designing of products.
- Analysed bug reports and developed suitable software patches for modules I was in charge of.
- Involved in the latest feature updates, including developing, integration, testing, performance measurements, fixing stability issues and improving the overall workflow by enhancing the process automation.
- Updated legacy code to newest standards, adapting modules to new frameworks.
- Implement and design new features using Autosar.
- Created and maintained thorough code documentation and traceability, vital for high-prio components and safety ADAS features.

AROBS Transilvania Software - Internship

May 2017 - Dec 2020

- Enrolled in an Internship camp during 2nd year of University, I developed a remote controlled toycar using a RaspberryPi and several STM32s microcontrollers.
- I took on a hands-on practical approach of every process involved in a usual project, cycling through electronic fundamentals, HW design, low level programming, up to creating the user interface, the client-server infrastructure and designing custom communication protocols.

Education:

Babeş-Balyai University, Mathematics and Computer Science 2014-present department: **Computer Science** (english)



Tiberiu Popoviciu High School of Computer Science Cluj Napoca 2013-2014 department: **Computer Science**

Avram lancu High School Cluj Napoca 2002-2013 department: **Computer Science**

Professional Skills:

- C/C++, Python, Shell Script, JS/TS
- FullStack Web (VueJS, NodeJS, Express, MongoDB,
- IoT, Automation, Data Acquisition (MQTT, REST, RTOS, InfluxDB, SAP, Autosar)
- DevOps (Git, CI/CD, AGILE (Jira, Confluence), networking)
- Virtualisation, Containerisation (Proxmox, Docker, Kubernetes)

Personal Experience:



Home automation project - (Linux, C++, HTML/CSS/JS, MQTT, Python)

I've designed and implemented a server on a RaspberryPi which handles many features around my house such as lights, heating/cooling system, alarm system, coffee maker, door locks, window curtains, intercom and plenty others using sensors, actuators through a web interface. The RaspberryPi communicates with the wifi enabled arduinos through MQTT protocol and the dashboard interaction is handled by a Flask web server. Integration with Siri/Google/Alexa is also available.

Telegram bot - Personal Assistant - (ESP32, C++,)

I used the Telegram bot API installed on several ESP32 microcontrollers in order to create a flexible interface through which I can read sensors data or interact with switches without the need of a centralized server or a tailored interface.



SmartBuilding monitor and control - (Linux, C++, HTML/CSS/JS, MQTT, Python)

Originally a degree project, I am now working on a product that uses a RaspberryPi as a central hub, allowing multiple remote modules to address the complex needs a modern office building such as: Controlled access using RFID tags which acts as a employer time-logger, Energy efficiency topics such as power consumption monitoring, automatic light dimmers, heating and ventilation controller, parking management system and many others.



Karting track - vehicle controller - (Linux, C++, HTML/CSS/JS, MQTT, Python)

I am developing a solution for a karting circuit that allows controlling and monitoring the karts in real time, centralizing data such as speed, position, engine rotations, temperature, usage pattern, enabling a comprehensive report about the laps, as well as the possibility to remotely control the parameters of each individual kart.

Beside the karts, many other amenities of the venue are well integrated: appointment manager, track lights system, garage features, consumption meter, etc.



Other applications: (C++, QT, Python, Linux)

Basic cloud-based switches for domestic appliances (Arduino, MQTT, C++) A scorekeeper app for games played with friends (HTML/CSS/JS, .NET); Spendings tracker designed specifically for personal use (HTML/CSS/JS, SQL);