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ABOUT ME

- I am a Software Engineer with a strong technical foundation in software development, automation, and applied informatics. My academic background includes a Bachelor's degree in Automation and Applied Informatics and an ongoing Master's in Software Engineering. During my studies, I developed expertise in programming (C, C++, JavaScript, SQL), software quality assurance, embedded systems, and industrial automation.
- Professionally, I have experience as a Computer Systems Engineer at CS GROUP, where I worked on software integration testing for aircraft engines, ensuring compliance with the DO-178B standard. My role involved writing and executing test cases, verifying software-level requirements, and using tools such as Cygwin, C, and Perl. I have collaborated with global teams, contributing to large-scale projects in the aerospace industry.
- I have strong analytical and problem-solving skills, adapt quickly to new challenges, excel in global teams, communicate effectively, and prioritize quality and attention to detail.
- I hold an ISTQB® Foundation Level Certification (CTFL), validating my expertise in software testing principles and methodologies.
- I am seeking opportunities in Quality Assurance, Software Development, and Business Analysis, where I can leverage my technical expertise, analytical mindset, and problem-solving skills to drive high-quality software solutions.

DIGITAL SKILLS

My Digital Skills

C/C++ | JavaScript | HTML/CSS | SQL | Miscrosoft Office

EDUCATION AND TRAINING

[Jan 2025] **ISTQB® Certified Tester - Foundation Level**

Certification number: No.25-CTFL 4-257269-12

[2023 – Current] **MASTER - SOFTWARE ENGINEERING**

UNIVERSITY OF CRAIOVA, FACULTY OF AUTOMATION, COMPUTERS AND ELECTRONIC

During my master's studies, the course Software Metrics and Quality Engineering proved to be the most captivating for me, providing essential tools for evaluating and refining software development processes. Measuring performance, complexity, and reliability of software are fundamental pillars in creating high-quality software products. In this regard, I used SonarQube to explore how software metrics are applied and to deeply analyze various aspects of the source code. This knowledge has proven extremely valuable for optimizing development workflows, ensuring the delivery of robust and scalable solutions, and promoting the continuous improvement of software product quality.

[2019 – 2023] **ENGINEER DEGREE**

UNIVERSITY OF CRAIOVA,FACULTY OF AUTOMATION, COMPUTERS AND ELECTRONIC

Specializing in Automation and Applied Informatics, I have gained a solid technical foundation, both theoretically and practically, by integrating academic knowledge with hands-on experience acquired through laboratories and applied projects. I have developed competencies in programming and software development, including procedural and object-oriented programming (C, C++, Java), databases, industrial software, operating systems, and real-time programming languages. Additionally, I have developed expertise in electronics and hardware, including linear electronic circuits, microprocessor systems and embedded systems.

PROJECTS

DIPLOMA PROJECT

- The application I developed is called "COMMUNICATION SYSTEM BETWEEN IoT DEVICES USING THE MQTT PROTOCOL".Within this project, I use the MQTT communication protocol, to ensure communication between IoT devices. The protocol is event-driven and connects devices using the publish/subscribe (Pub/Sub) model. The sender (publisher) and receiver (subscriber) communicate through topics and are decoupled from each other.The connection between them is managed by the Mosquitto broker. The Mosquitto broker lters a incoming messages distributes them correctly to subscribers.

Interactive Fitness Tracking App (MoveMap)

The main objective of the "MoveMap" project was to develop an interactive application that allows users to **add and visualize physical activities on an interactive map**. The application enables users to input data about distance, duration, and other relevant parameters for their activities (such as steps in running or elevation gain in cycling). The application saves data in localStorage and provides clear visual feedback on both the map and the list. I chose standard web technologies (HTML, CSS, JavaScript) to create the application because they are the most accessible and allow for the rapid development of an application that can be used on any device with a browser.

- **HTML:** For the structure of the webpage.
- **CSS:** For the visual styling of the page and adapting it to different devices (responsive design).
- **JavaScript:** For the application's logic, interactivity, and data flow management.
- **Leaflet.js:** For integrating the interactive map and placing markers on the map, allowing users to visualize the locations of their activities.
- **LocalStorage:** To store user data (such as added activities) so that it persists even after the page is reloaded.

The development process was gradual, starting from a general sketch of the application and progressing step by step with the implementation of functionalities. I conducted research on various web development sites, such as MDN Web Docs, Stack Overflow, and Udemy.

One of the major difficulties I faced was correctly implementing the interactive map using Leaflet.js and integrating the markers on the map. Initially, I encountered issues with the accuracy of marker positioning and managing click events on the map. I solved this problem by thoroughly reviewing the documentation and testing different methods for handling the map.

I was able to complete the project by implementing all the desired functionalities. From this experience, I learned the importance of thoroughly understanding the documentation for the technologies used and how to overcome obstacles through continuous research and testing.

Link: https://vaduva-anca.github.io/Interactive-Fitness-Tracking-App-MoveMap/

SmartEnroll - kindergarden

I chose this topic because I believe that digitizing the kindergarten enrollment process is essential for efficiency and accessibility. I was inspired by the fact that many institutions still use traditional methods (paper forms, manual emails), which can be inefficient and time-consuming. I wanted to create a modern, easy-to-use solution that simplifies this process for both parents and the kindergarten administration.

For the **front-end**, I chose **HTML, CSS, and JavaScript** to create a dynamic and interactive interface.

For the **backend**, I used **Node.js + Express.js** to handle HTTP requests and server logic.

Additionally, I integrated **Nodemailer** for automated email sending, **.env (dotenv)** to protect email credentials, and **CORS** to allow server access from other domains.

The development process started with researching user needs (both parents and administration). I gathered information from tutorials, MDN articles, Stack Overflow, and Udemy. I first created an initial prototype, then began coding step by step, testing each component as I progressed.

Challenges I Faced:

- **Nodemailer Configuration:** Gmail sometimes blocks less secure apps. I solved this by enabling "Less Secure Apps" and using an application-specific password.
- **CORS Issues:** Initially, the front-end couldn't communicate with the back-end. I resolved this by adding cors() in Express.js to allow access.

Achievements:

I successfully created a **user-friendly interface for parents**, implemented an **automate d email confirmation system**, ensured **data compatibility and security**, and provided a **scalable solution** that can be expanded for multiple institutions in the future.

Link: https://vaduva-anca.github.io/Taramul-zanelor-website/

WORK EXPERIENCE

[11 Oct 2022 – 11 Apr 2024]

COMPUTER SYSTEM ENGINEER

CS GROUP

City: Craiova | **Country:** Romania

- Software Integration Testing (ASA - Application Software Algorithm) for functional verification and validation of the Next Generation Product Family airplane engines (PW814G, PW812G, PW814GA, PW812GA engines).
- Design, write and execute test cases to validate robustness and to cover system requirements. Verification of all software level requirements under DO-178B standard, using board testing and evaluation board.
- Tools and languages used: Cygwin, MS Office, C, Perl;

LANGUAGE SKILLS

Other language(s):

English

LISTENING B2 **READING** B2 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user