Alexandra Gabriela Culea

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Education

University POLITEHNICA of Bucharest *2022 - 2026*
Faculty of Electronics, Telecommunications and Information Technology
Approached subjects: Object Oriented Programming, Robotics, Data Structures and Algorithms, Microprocessor Architecture, Digital Integrated Circuits

"Mihai Viteazul" National College *2018 - 2022*
Mathematics and Informatics

Courses and experience

Oracle Cloud Infrastructure Generative AI Professional July 2024-September 2024

Marvell ASIC Design Summer School July 2024

- Package Design Module
- Introduction to package planning and layout, by using Allegro Cadence
- Introduction to signal and power integrity, and thermal analysis

NXP Summer School- Cryptographic, Algorithms in Embedded Systems June 2024

- Course and hands-on lab
- Introduction to Embedded Systems (Microcontrollers) using MCUXpresso IDE
- Introduction to Cryptography
- Testing in embedded systems

Python 101-Hackademy March 2024-June 2024

Projects

Travel Mate

github.com/AlexandraCulea/Travel$_{Mate}$

- A web application using Python and Flask that employs AI to produce personalized text based on user-provided parameters submitted via an online form.
- This application incorporates a machine learning model to generate content dynamically, highlighting my abilities in AI, web development and user interface design.

Arduino Car

- The project aims to build an Arduino-powered car capable of moving in four directions. Key components include an Arduino microcontroller, a motor driver, DC motors, wheels, and a chassis.

Health Tracker Journal

github.com/AlexandraCulea/Health$_{Tracke}$

- By using Python, the web application presents a health tracker journal that helps the user to monitor his sleep, diet, physical activity, mood and symptoms by giving the user a daily/weekly report, which can be exported.
- The application uses Flask for page rendering and design, utilizing HTML, CSS, and the Jinja framework for dynamic content changes based on user inputs.

Programming Languages and Technologies

- C/C++, Python, HTML, Verilog, SQL, Matlab
- MySQL, JSON, Autodesk Inventor, Vivado, Android Studio, Arduino IDE, Visual Studio Code