Darius Dima



Professional experience

Software Engineer

at Robert Bosch Engineering Center

- Built and rolled out an **AI Code Reviewer** for our codebase; reduced manual review overhead and accelerated delivery for developers.
- Contributed in **Generative AI for Software Development** communities (20% time); advocated **GitHub Copilot** and agentic workflows.
- ➡ Delivered features across the web stack: **Angular** (frontend), **C#/.NET** APIs, **MongoDB**.

2022 – Present Cluj-Napoca, RO

- TesserHub accelerator: validated and implemented a new automotive safety function; led an innovation initiative in my department.
- Completed the **Hugging Face Agents Course**; built a local-LLM agent with **Qwen-32B** using **LangGraph** and **LlamaIndex** to tackle complex domain questions.
- Published "Introduction to RAG Systems" in Today's Software Magazine (TSM); open-sourced an end-to-end RAG implementation in Python (see GitHub).
- Agile, cross-functional development for safety-critical automotive software in a **multinational** team.

EDUCATION

Bachelor's degree, Computer Science

at University of Bucharest

2021 Bucharest, RO

- Focus: OOP, Data Structures Algorithms, AI, Deep Learning, OS, Web.
- Built hands-on products blending **robotics** (Arduino), **CAD** (Fusion 360), and software; entrepreneurial, user-focused mindset.
- Thesis: Augmented Reality multiplayer strategy game (Unity, C#).

Bachelor's degree, Orthodox Theology

at University of Bucharest

Bucharest,

2019

RO

- Bachelor's degree in patrology with grade 9.25 out of 10.
- The faculty helped me deepen my knowledge about the Orthodox Christian philosophy and to enrich my perspective on the reality.

SELECTED PROJECTS

- End-to-end RAG System (Python): Local RAG pipeline (LM Studio + FAISS): ingestion, chunking, retrieval, re-ranking, and evaluation.
- AI Code Reviewer (internal, Bosch): LLM-assisted static reviews with repository context; reduced review time and flagged risky changes early.
- <u>Local LLM Agent (LangGraph & LlamaIndex):</u> **Qwen-32B** running locally; tool-augmented reasoning to answer complex domain questions (Hugging Face Agents Course).
- Arduino Matrix Game: Retro Bomberman console, dual controllers; designed in Fusion 360, 3D printed.
- Self-balancing Arduino Motorbike: PID-stabilized, radio-controlled motorcycle; designed in Fusion 360, 3D printed.
- <u>CT Image Classification (Kaggle):</u>Pulmonary CT vessels; SVM, CNN, **ResNeXt101-32x8d** + FC head; **74.29**% vs required **39.38**%.
- Data Structures in C++:Templated headers: List, AVL tree, etc.

SKILLS

AI/ML : RAG LangChain/LangGraph Prompting

PyTorch Vector DBs

Backend & Infra : C#/.NET Python Docker Git
Frontend : Angular TypeScript HTML/CSS

Core CS : OOP Data Structures Design Patterns

Tools : Unity Fusion360 (CAD) Arduino IATEX

Languages : Romanian: native English: working proficiency