Mihai-Alexandru Hutan
Software Engineer

I am a final-year computer science student at University of Bucharest, Romania, with a passion for programming and a keen interest in **machine learning** and **web development**. Throughout my academic journey, I've honed my skills in various facets of computer science, positioning myself to excel in the dynamic world of technology. Having played handball for nine years on a high-performing team, I understand the value of **teamwork**, **communication**, and **determinatio**n in achieving collective goals.

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WORK EXPERIENCE

Software Engineer
iBac

05/2023 - Present   *Bucharest, Romania*
Small startup that helps the young students in Romania to ace the Baccalaureate exam. Top 25 education apps on AppStore in Romania.

Achievements/Tasks

- Contributed to arhitectural decisions and feature brainstorming sessions, ensuring the delivery of a high quality product and new awesome features.
- Responsible for the frontend web development side of business. Created robust and user friendly admin dashboard.

Junior Software Engineer
Capgemini Engineering

07/2022 - 05/2023   *Bucharest (Remote), Romania*

Achievements/Tasks

- Began my journey at Capgemini Engineering as an Intern and after two months I was promoted to the position of a Junior.
- Initiated and executed projects from inception, leveraging **Docker** for efficient containerization and establishing robust **CI/CD Pipelines** for both **deployment** and **testing**. Developed, **documented** and **tested RESTful APIs** to facilitate seamless collaboration with the frontend team.
- Proficiently processed and filtered substantial volumes of data received from data engineering teams, ensuring the delivery of comprehensible and industry-standard APIs.
- Contributed to projects utilizing a technology stack comprising **Docker**, **FastAPI**, **Django**, **SQLAlchemy**, **Alembic**, **PostgreSQL**, **Poetry** and **Pytest.**

EDUCATION

Bachelor of Computer Science
University of Bucharest

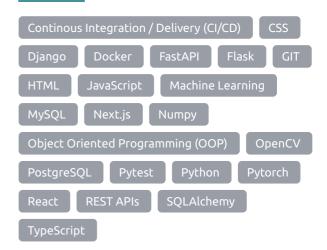*10/2021 - Present*   *Bucharest, Romania, GPA 8/10*

Courses

- I am a member of the performance group, benefiting from a full scholarship throughout my university journey.

Mathematics and Computer Science
National College "Gheorghe Lazar"

09/2017 - 05/2021   *Bucharest, Romania, GPA 9.5/10*

SKILLS

Continous Integration / Delivery (CI/CD)   CSS
Django   Docker   FastAPI   Flask   GIT
HTML   JavaScript   Machine Learning
MySQL   Next.js   Numpy
Object Oriented Programming (OOP)   OpenCV
PostgreSQL   Pytest   Python   Pytorch
React   REST APIs   SQLAlchemy
TypeScript

PERSONAL PROJECTS

Reinforcement Learning - Atari Skiing (01/2024 - 01/2024) ⬈

- Developed DQN and DDQN algorithms for OpenAI Gym Skiing environment. Showcased commitment to refining network architecture and preprocessing, addressing challenges in hyperparameter tuning. This project marked my initial venture into reinforcement learning implementations.

Double Double Dominoes (12/2023 - 12/2023) ⬈

- Implemented a computer vision system for automated dominoes game analysis. The project involves three main steps: board extraction, piece detection, and classification.
- Board extraction includes HSV masking, preprocessing, edge detection, and contour identification.
- Piece detection addresses challenges such as center text interference and misplacement.
- Classification utilizes templates for both vertical and horizontal domino pieces, employing template matching with preprocessing for accurate results.
- The final component, score calculation, involves dynamic programming considering player positions on the score board.

Calorie Tracker Backend (05/2023 - 06/2023) ⬈

- Developed the backend infrastructure for a React Native application, specializing in a calorie tracking feature similar to a simplified version of MyFitnessPal. Demonstrated a commitment to adhering to industry best practices in code quality and architecture. Notably, this project marked my inaugural endeavor in constructing a backend architecture from the ground up.

Brain Anomaly Detection (03/2023 - 04/2023) ⬈

- As a participant in a Kaggle competition hosted by my university's Artificial Intelligence course, I successfully created a binary classification model designed to identify brain anomalies within CT scans. This model helped me obtain the 8th place out of 128 students.