



## Dimitrije Zdrle

3rd year student

Bachelor of Science

Mathematics and Computer Science

École polytechnique, Paris

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Dimitrije Zdrle

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D-2n

### SUMMARY

Quick learning | motivated | resilient | teamwork oriented | proactive | adaptable | detail – oriented | consistent

### EDUCATION

#### •École polytechnique, Paris

2021-2024

Bachelor of Science

GPA: 3.51/4

#### •Denmark Technical University, Copenhagen

2023-2024

Exchange Semester focusing on Machine Learning, Data Science and Cybersecurity

### PERSONAL PROJECTS

#### •Image colorization Machine Learning model

2023

Greyscale to color image converter using GAN's, dilated convolutions and other methods. Completed in a team of 4.

- Tools & technologies used: Pytorch, Numpy
- (github.com/andreibornea/Grey-Scale-Image-Colorization)

#### •Car image segmentation with Deloitte Consulting

2023

Created a U-Net based Deep Learning Algorithm to segment a car image into parts.

- Tools & technologies used: PyTorch
- Team leader

#### •Tumor recognition

2023

For the Danish National AI competition, I developed a Deep Learning algorithm that detects tumors on PET scans.

- Tools & technologies used: PyTorch

#### •Assessing the impact of performance metrics on football player rankings

2023

Employed clustering algorithms on player metrics, used regression analyses to determine the most significant factors.

- Tools & technologies used: Python libraries

#### •ClosedFish AI

2022-2023

Chess AI that performs better than Stockfish standard on closed chess positions. Completed in a team of 12.

- Tools & technologies used: OpenCV, C++
- I made the board and chess piece position recognition based on an image.
- (github.com/closedfish)

#### •Nim game winning strategy proof

2022-2023

Wrote a formal mathematical proof of the existence of a winning strategy in a Nim game.

- Tools & technologies used: Coq
- (github.com/D-2n/Nim-game-winning-strategy)

#### •Telegram multi-channel translation Bot

2023

Telegram bot that translates messages from a user in a channel and sends them to another one.

- Tools & technologies used: Python, Python Telegram API
- (github.com/D-2n/translate\_bot)

#### •Server-client UDP protocol implementation

2023

I have made a server and a client instances that communicate using the UDP.

- Tools & technologies used: C, Network programming libraries
- (github.com/D-2n/server\_client\_udp\_tic\_tac\_toe)

#### •Hedgify

2022

In a team of 5, we made a D.App for staking against depegging of a stablecoin on a HEC Tezos Web3 hackathon.

- Tools & technologies used: React.js
- I was the front-end team leader in this project.

#### •Robot shooter game

2022

Created a web browser shooter game as a web programming course project.

- Tools & technologies used: HTML, CSS, Javascript
- (github.com/D-2n/Web-game)

COMPANY EXPERIENCE

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**Research and Development Bachelor thesis at Heex Technologies** 2024  
*I combined Carla, ROS2 and Heex's software to create a loop for live training and validation of autonomous driving algorithms.*  
• Tools & technologies used: Carla Python API/Bash, ROS2 Python API/Bash, OpenCV

TECHNICAL SKILLS AND INTERESTS

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**Languages:** Serbian (Native), English (C2), Russian (C2), French (B2/C1)  
**Developer Tools:** Python/PyTorch, C/C++, JavaScript, Docker, Shell/Bash, HTML, CSS, PHP, React, R, Coq, ROS/ROS2, GDB debugger  
**Technical Skills:** Git, LaTeX, PowerPoint, Excel, Trello

POSITIONS OF RESPONSIBILITY

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–**Mental Health Awareness week co-founder** at École polytechnique 2021-2022  
–**Cinema club co-president** at the University Cinema Club 2022-2023