

Jan Brkic

[email](#) | [LinkedIn](#) | [GitHub](#)

ABOUT ME

I'm a masters student specializing in robotics at the University of Zagreb, Croatia, holding dual degrees in computer science and mechatronics. My journey in the world of technology began in my high school years, during which I discovered my passion for coding. The passion has motivated me to explore a wide range of experiences and educational opportunities, allowing me to develop a strong foundation in various programming languages, problem-solving skills, and hands-on expertise.

EDUCATION

Technical school Ruder Boskovic <i>Mechatronics Technician</i>	Zagreb, CROATIA Sep. 2015 – May 2019
Faculty of Electrical Engineering and Computing <i>Bachelor of Science in Computing</i>	Zagreb, CROATIA Oct. 2019 – May 2022
Faculty of Electrical Engineering and Computing <i>Master of Science in Robotics</i>	Zagreb, CROATIA Oct. 2022 – Present

EXPERIENCE

Autonomous Systems Engineer (Hobby) <i>FSB Racing Team</i>	Oct. 2023 – Present Zagreb, CROATIA
<ul style="list-style-type: none">• Spearheading the development of innovative trajectory optimization algorithms for autonomous racing vehicles, focusing on time-optimal path planning• Conducting extensive testing sessions, both in simulation environments and on-track, to validate and refine algorithms• Software Development for Autonomous Driving, Cross-Functional Team Collaboration, Continuous Learning	
Software Engineer <i>Sartura</i>	Mar 2023 – Dec 2023 Zagreb, CROATIA
<ul style="list-style-type: none">• I've primarily worked with C and C++, leveraging my programming expertise to enhance the functionality of network devices• Successfully completed a crucial project for German Telekom• Implementing new functionalities, including working with nftables, iptables, and networking protocols	
Software Engineer for heavy duty vehicles <i>DOK-ING</i>	May 2022 – May 2023 Zagreb, CROATIA
<ul style="list-style-type: none">• I led and successfully completed a project focused on battery management and control systems for heavy-duty vehicles• This role provided me with hands-on experience in working with STM32 boards, a wide variety of sensors, and the intricate world of electronics• I honed my proficiency in C programming, which was important in ensuring the proper functionality of the systems	
Robotics Engineer <i>Laboratory for Robotics and Intelligent Control Systems</i>	Oct 2021 – May 2023 Zagreb, CROATIA
<ul style="list-style-type: none">• Led by my mentor, I leveraged my expertise in ROS, Gazebo, C++, and Python to work on mobile robot perception, LIDAR, and visual servoing in a vineyard• I honed my research skills, showcasing my patience and meticulousness in finding critical information• I've explored various programming languages like C++, Java, Python, and SQL, applying them to AI, machine learning, robotics, and data analysis projects	
Software developer <i>Recogno</i>	Jan 2018 – Jun 2018 Zagreb, CROATIA
<ul style="list-style-type: none">• Programming solutions for store like environment, scanning the articles and finding them in base using C programming language• Working at Startup company that gave me the feeling of dynamic environment	

PROJECTS

HVPDB | *C/C++, RTOS, CAN communication, BMS, STM32, Team work*

Jun 2022 – Jan 2023

- I have fully finished the software for heavy-duty vehicles used for anti-terrorism
- It included everything from powering the vehicle to communication with various sensors and devices to providing safe operations with the vehicle

HEKTOR | *C++, Python, ROS, Computer Vision*

March 2022 – Jun 2022

- In this project, my job was to recognize vine trees and perform needed actions with a robot hand. I solved the problem using computer vision and the C++ programming language with the help of ROS

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres)

Machine Learning: strong understanding of machine learning and AI algorithms

Developer Tools: ROS, Git, Docker, VS Code, CMake, Visual Studio, IntelliJ, Eclipse, Google, Linux

Enthusiast about: Mathematics, Physics, and Linear Algebra, Rubik's cube solver under 1.5 minute