# Dănilă Mihai Bogdan

## Electrical Engineering and Computer Science

## CONTACT

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## EDUCATION

**TRANSYLVANIA UNIVERSITY BRASOV**

**Master's Degree**
**2024 - Present**
Advanced Systems in Automation and Information Technologies

**Bachelor's Degree**
**2020 - 2024**
Electrical Engineering and Computer Science

**ARTS HIGH SCHOOL "IONEL PERLEA" SLOBOZIA**
**2016 - 2020**
Matemathics-Informatics Intensive In Informatics

## SKILLS

- Programming Languages:
C++, C, C#, Python, Java, HTML, CSS, JavaScript, Git, Fork
- Attention to Detail
- Problem Solving
- Multitasking
- AutoCAD
- CATIA V5
- MATLAB
- Microsoft Office

## ACHIEVEMENTS

- Certificate of **Participation and Qualification at Innovation Labs HACKATHON**
- 1st Place at **Energy Challenge HACKATHON**
- 2nd Place at **GREEN LIFE HACKATHON**
- Certificate of Participation at **BRD FIRST TECH CHALLENGE ROMANIA**, SEASON 2018-2019

## ABOUT ME

**Engineer** in the field of **Robotics** with a strong passion for **technology** and **programming**. Experienced in **software development** both individually and collaboratively within a team environment. Skilled in creating **practical** and **efficient solutions** for diverse projects, continuously driven to embrace **new challenges** that enhance my **skills** and expand my knowledge

## WORK EXPERIENCE

**ICEBERG+**
Technician in the SmartCityLivingLab Project
2024 - 2025

- **Managed and monitored** the functionality of **sensors** designed for **agriculture, water purity, and air pollution**.
- **Ensured optimal operation** of sensors located in **Braşov, Tulcea, Slobozia, and Constanţa**, overseeing the **collection and transmission of environmental data**.
- Integrated collected data into a dedicated **analysis and visualization platform**, facilitating **data-driven insights**

**ARTBYTE**
Mentor in the Augmented Reality Department
2023 - 2024

- **Mentored and coordinated** the team in the **Augmented Reality Department**, leading the development of **AR applications** for diverse client projects.
- **Collaborated closely with team members** to create **innovative and customized AR solutions** aligned with client **technical and design requirements**.
- **Provided technical support and constructive feedback** throughout the **development process**, ensuring **high-quality results**

PhotoBoot App

2024 - 2024

- I worked as part of a 3-person team on developing an **AI** application in **Python**, aimed at selecting the **appropriate style** for an **image**.
- The application first generated an image based on a **photo** taken in real time of a person. Using **machine learning algorithms**, we analyzed the photo and applied **specific styles** to the generated image.
- I gained experience in **image processing** and **team collaboration**, while improving my **Python programming** skills and understanding of **AI applications** in real-world scenarios

**IBM and Caditec Internships**
Internship Experience as a Software Developer and Automation Engineer
2022, 2024

- **Contributed to the development** of a **cinema application** during my internship at **IBM** in **2022**, utilizing **Java, Git, and Fork**.
- Participated in the design and assembly of **electrical panels** for **industrial robot control** at **Caditec** in **2024**, gaining experience in **selecting and integrating components** to ensure the functionality of **electrical systems**.
- **Implemented features** enabling users to **book movie seats** and **schedule viewings** at preferred times, while enhancing my **programming skills** and developing a deeper understanding of **industrial automation processes** by collaborating with **team members** and ensuring **efficient management** of reservations in a **database**

# PROJECTS

### Diploma Project: Developing a Plotter-Type Robot to Execute a Range of Tasks Efficiently
- I designed and developed a **plotter-type** robot to perform precise drawing and tracing tasks
- I used a **stepper motor** for precise control of the robot's movements and a **pen holder** for tracing on paper
- I implemented **software algorithms** for motion planning and task automation, gaining experience in **robotics** and **control systems**

### AI Application for Extracting and Implementing Background Sounds
- I created an **AI-based application** for extracting and implementing background sounds into audio files
- I used **machine learning algorithms** to recognize and replace background sounds based on user preferences
- I gained experience in **audio processing** and **deep learning models** for **real-time sound enhancement**

### Lidar Sensor in Linux
- **LiDAR sensor** integration with a **Linux operating system** for distance measurements and 3D mapping
- Configured and calibrated the LiDAR sensor for real-time data acquisition
- Gained experience in **sensor integration**, Linux systems, and the use of **LiDAR technology** for **autonomous applications**

### Gearbox Project in CATIA
- I designed a **gearbox** using **CATIA** software to create an efficient **transmission system**
- I created 3D models of **gears** and the **transmission shaft**, optimizing the system's performance
- The project helped me develop skills in **mechanical design** and **engineering analysis** for complex systems.

### Arduino Project: Automatic Parking Car
- I developed an **automatic parking system** using **Arduino** and **sensors** to detect obstacles
- I implemented **control algorithms** to autonomously maneuver the car into the parking space
- I gained experience in **embedded systems**, **Arduino programming**, and **robotic control systems**

### Robotic Manipulator System
- I built a **robotic manipulator system** to perform automated tasks such as picking and placing objects
- I integrated **servo motors** and **sensors** to ensure precise control of the robotic arm's movements
- I gained experience in **robotics**, **automation**, and **motion control** through both software and hardware development

### Hydraulic Piston
- I designed a **hydraulic piston system** for controlling fluid movement and pressure
- I created **hydraulic circuits** and tested the system for performance and durability under varying loads
- The project strengthened my knowledge of **fluid mechanics**, **hydraulic systems**, and **industrial design**