



Alessandro Lambertini

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ABOUT ME

About me

I'm a computer engineer working as a full stack developer and in the AI field.

In the last months, I learned React and I love because it's a flexible, powerful and dynamic JavaScript library .

I'm very curious this is why I love to learn new things and I'm always looking for new challenges.

About that I'm reading many computer science books and I'm learning German.

WORK EXPERIENCE

Web engineer

Teleconsys spa [20/10/2022 – Current]

City: Rome

Country: Italy

I'm working as a full stack web developer programming in JavaScript using React.

I'm involved in developing Apply Now, a solution for creating and managing digital forms.

This is a very large project in which I have created and modified many features that integrate with the various functionalities of the application.

Additionally, I am part of an innovation group that specializes in creating cutting-edge solutions using artificial intelligence and machine learning technologies.

EDUCATION AND TRAINING

Master's Degree in Artificial Intelligence and Robotics

University of Rome "La Sapienza" [10/2020 – 10/2023]

Address: Piazzale Aldo Moro 5, 00185 Rome (Italy)

Website: <https://www.uniroma1.it/>

Field(s) of study: Artificial Intelligence | Robotics

Final grade: 110L/110 – **Level in EQF:** EQF level 7

National classification: Master's Degree – **Type of credits:** CFU – **Number of credits:** 120

Thesis: Visual Odometry in unknown environment using Convolutional Neural Network

In these two years of my Master's Degree I have had the opportunity to study and experiment in the field of AI and robotics, realizing many projects based on these technologies.

During the second year I participated and concluded the path of excellence, reserved to few students, developing a project based on visual odometry with the aim of studying further neural networks capable of improving the results previously obtained from my thesis.

All courses were taught in English which allowed me to improve my personal knowledge and skills.

Bachelor's Degree in Computer Engineering

University of Modena "UNIMORE" [10/2017 – 07/2020]

Address: Via Università 4, 41121 Modena (Italy)

Website: <https://www.unimore.it/>

Field(s) of study: Computer Engineering

Final grade: 100/110 – **Level in EQF:** EQF level 6

National classification: Bachelor's Degree – **Type of credits:** CFU – **Number of credits:** 180

In these 3 years I have been able to consolidate my programming foundations in C, Java, Python, as well as deepen my knowledge in science and mathematics.

The thesis was carried out with the collaboration of Bosch and the municipality of Mantova, the aim of the project was to develop a monitoring system for the collection of data on IOT sensorized parking lots and to provide a mobile app for data visualization for the final user.

PROJECTS

Master's Thesis: Visual Odometry in unknown environment using Convolutional Neural Network

[03/2022 – 10/2022]

Code use for the results in my master's thesis.

Link: <https://github.com/lambertinialessandro/EAI-Master-Thesis>

Final project for the course of Human Robot Interaction and Reasoning Agents 2021/2022.

[04/2022 – 07/2022]

[Human Robot Interaction and Reasoning Agents] Programmed a drone to interact with humans using face recognition, hand gesture recognition and implemented a reasoning policy for its behaviour.

Links: <https://github.com/lambertinialessandro/HRI-RA-FinalProject> | <https://www.youtube.com/watch?v=9-hA28TNSSU&feature=youtu.be>

Grid-based path planning for a differential drive robot

[03/2022 – 06/2022]

[Autonomous and Mobile Robotics] Implementation and testing in a virtual environment of different path planning algorithms: D*, D*Lite and Field D*.

Link: <https://github.com/lambertinialessandro/AMR-FinalProject>

Adult-Child Musculoskeletal Model and Motion Analysis.

[08/2021 – 10/2021]

[Medical Robotics] Implementation of algorithms to analyze the kinematic, dynamic and equilibrium of a 7-years-old and his sister subject to a spastic CP

Link: <https://github.com/lambertinialessandro/MR-FinalProject>

Implementation of the network RRU-NET of the paper "RRU-Net: The Ringed Residual U-Net for Image Splicing Forgery Detection" also modified with the FSM block.

[06/2021 – 07/2021]

[Vision and Perception] Re-implemented the starting paper and improved the results using novel approaches like FSM.

Link: <https://github.com/lambertinialessandro/VP-FinalProject>

Implementation of the paper "What Did You Think Would Happen? Explaining Agent Behaviour through Intended Outcomes" and our experiments.

[03/2021 – 07/2021]

[Reinforcement Learning] Re-implemented the starting paper and improved in larger environments.

Link: <https://github.com/lambertinialessandro/RL-FinalProject>

Implementation of the network X-NET of the paper "X-Net: Brain Stroke Lesion Segmentation Based on Depthwise Separable Convolution and Long-range Dependencies" also in the Quaternion domain.

[07/2021 – 09/2021]

[Neural Networks] Re-implemented the starting paper and improved using DSC and QCNN

Link: <https://github.com/lambertinialessandro/NN-FinalProject>

Final project for the course of Interactive Graphics 2020/2021.

[06/2021 – 07/2021]

[Interactive Graphics] Implement a virtual environment using WebGL and allowed the user to interact with it

Link: https://github.com/lambertinialessandro/IG-Homeworks_FinalProject

LANGUAGE SKILLS

Mother tongue(s): **Italian**

Other language(s):

English

LISTENING B1 READING B1 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

German

LISTENING A1 READING A2 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

DIGITAL SKILLS

C / C++ / Java / Python / HTML / CSS / Assembly / JavaScript / SQL / PHP / Matlab / React / Visual Basic / Website Deployment / Android Application Development (Android Studio)

HOBBIES AND INTERESTS

Hobbies and interests

In my free time I like to go out for a walk in Hamburg.

I tutor nearly ten high school and college students, I love teaching and this helps me keep subjects fresh that I don't usually do.

I'm a sporty person and I like going to the gym, a while ago I practiced judo and was a black belt.

even when I went to judo I taught the younger boys alongside the teacher.