



# Andrea Amaduzzi

PhD Student in Computer Vision and Deep Learning @ Unibo

I am a PhD student at University of Bologna. I teach machines how to see.

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06 August, 1995

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## WORK EXPERIENCE

### PhD Student in Computer Vision

University of Bologna, Italy

11/2021 - Present

Details:

- Supervisor: Prof. Luigi Di Stefano
- Expected graduation: November 2025

### R&D Vision Software Engineer

Datalogic

07/2020 - 11/2021

Bologna, Italy

Tasks:

- Design and implementation of image processing algorithms
- Software maintenance, with Git version control
- Tools: C++, Python, Git, IBM Jazz

### Computer Vision intern - Master's Thesis

KUKA Robotics - Corporate Research

07/2019 - 02/2020

Augsburg, Germany

Achievements/Tasks

- Thesis title: Deep Learning - based Human Action Recognition in a Collaborative Robotics Environment
- Accomplished excellent evaluation from supervisors: "Exceeded the expectations considerably and at all times"

Contact: Dr. Kirill Safronov - [Kirill.Safronov@kuka.com](mailto:Kirill.Safronov@kuka.com)

## EDUCATION

### Master's Degree in Automation Engineering

University of Bologna, Italy

09/2017 - 03/2020

Final mark: 110/110 with honors

Courses

- Thesis Title: Deep Learning - based Human Action Recognition in a Collaborative Robotics Environment
- Focus on: Industrial Robotics, Computer Vision
- Winner of "Overseas" scholarship to spend a semester as Exchange Student at University of Technology of Sydney

### Bachelor's degree in Automation Engineering

University of Bologna, Italy

09/2014 - 09/2017

Final mark: 110/110 with honors

Teaching language: Italian

- Top 3% Class Rank (8 out of 250 students)
- Experimental thesis: Recurrent Neural Network and Genetic Algorithm for sEMG-based torque estimation

## SKILLS

C++	Python
ROS	Git
Pytorch	OpenCV library
PCL (Point Cloud library)	Open3D

## PROJECTS

### Deep Learning - based Human Action Recognition in a Collaborative Robotics Environment (07/2019 - 02/2020)

- Master Thesis project at KUKA Robotics
- Deep learning models (Mask-RCNN, OpenPose), 3D Point cloud processing
- Tools: Python, C++, ROS, Tensorflow, OpenCV, PCL, Git

### 3D Object Modeling through 3D camera (10/2019 - 11/2019)

- Side project at KUKA Robotics - Corporate Research
- Method for the generation of a 3D mesh, from RGB-D input
- Tools: Java, ROS

### 2D Long-Term SLAM with a Fetch Robot (09/2018 - 11/2018)

- Implemented an algorithm for simultaneous localization and mapping of Fetch Robot;
- Implemented with ROS (Robot Operating System)
- University of Technology of Sydney, Australia

## RELEVANT COURSES

### Machine Learning for Computer Vision

University of Bologna, Italy

### NVIDIA Webinar Series on Transformer architectures

NVIDIA AI Technology Center (NVAITC)

### Fundamentals of Accelerated Computing with CUDA Python

NVIDIA Deep Learning Institute

## LANGUAGES

Italian	English (C1)
Native or Bilingual Proficiency	Full Professional Proficiency
Spanish (B1)	German (A2)
Professional Working Proficiency	Limited Working Proficiency