# **IACOPO CATALANO**

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Personal Web Page
iacopomc
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### **SKILLS**

**Programming**: Python, Java, C++, SQL, MATLAB **Languages**: Native Italian, Proficient English, Intermediate French **ML/DL**: Tensorflow, Scikit-Learn, OpenCV, Keras

### **PROJECTS**

## 3D Multi Object Tracking

- Used a deep-learning approach to detect vehicles in LiDAR data based on a birds-eye view perspective of the 3D point-cloud.
- Implemented an extended Kalman filter to track vehicles over time, based on the lidar detections fused with camera detections

# **Advanced Lane Finding**

- Used Distortion Correction, Color/Gradient and Perspective Transform to detect highway lanes in a video using OpenCv.
- Calculated car position within lane and lane radius of curvature based on coefficients of polynomial fit.

#### PROFESSIONAL EXPERIENCE

Research Intern • Laboratoire Hubert Curien	4/2021 – 7/2021
• Developing a CNNs based multi-Object tracking algorithm to locate small electronic parts in real-time.	
• Exploring the use of Siamese CNN to find the set of features that best distinguish between subjects.	
Junior Data Scientist • Accenture	1/2020 - 8/2020
Researching and adapting existing algorithms in Computer Vision	
Conducting exploratory data analysis	
Supporting Senior Data Scientists in algorithm design	
Front-end Web Developer • Accenture	2/2019 – 1/2020
• Developed new web applications using Angular, Bootstrap, Angular Material and JavaScript	
Redesigned existing web applications to improve browser compatibility	
Oversaw new interns on project milestones	
Front-end Web Developer (Intern) · Accenture	9/2018 – 2/2019
Worked with Senior Developers to manage large, complex design projects	
Assisted team with testing code on multiple browsers	
EDUCATION	
Master of Engineering • Toyohashi University of Technology	2020 - 2022
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M.Sc. Optics, Image, Vision, Multimedia • University Jean Monnet	2020 - 2022
M.Sc. Computer Science in XR • University of Eastern Finland	2020 - 2022
B.Sc. Physics • Sapienza University of Rome	2010 - 2018

### **RELEVANT COURSEWORK**

- 2020: Deep Learning, a 5-course specialization by deeplearning.ai: CNN, GAN, RNN, NLP(LSTM)
- 2020: Tensorflow in Practice, a 4-course specialization by deeplearning.ai: CNN, NLP, Sequence Models using Tensorflow
- 2020: Control of Mobile Robots, Georgia Institute of Technology on Coursera

## **VOLUNTEER EXPERIENCE**

## **Team Coordinator • AGESCI** 2001 - 2015

- Coordinated, mentored, and trained several scout groups of different ages
- Led weekly meetings and organized yearly summer camps
- Secured parent involvement and participation in activities
- 2007 2009 Volunteer Stretcher (Patient Care) for U.N.I.T.A.L.S.I. Association