

# Richard Coll Josifov

Stockholm, Sweden · Barcelona, Spain

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## Education

### M.Sc. Applied and Computational Mathematics

Aug. 2022 - May 2024

KTH ROYAL INSTITUTE OF TECHNOLOGY

Stockholm, Sweden

- Specialisation: Mathematics of Data Science.
- Some relevant courses include: Probability Theory, Numerical Methods, Computational Statistics, Regression Analysis, Stochastic Differential Equations, Operations Research, Numerical Algorithms for Data Science.

### B.Sc. Electrical Engineering

Sept. 2018 - July 2022

POLYTECHNIC UNIVERSITY OF CATALONIA · BARCELONATECH

Barcelona, Spain

- Average grade of 9,3 out of 10 with honours. First of the 2022 promotion.
- Recipient of the Taval Scholarship which covered full tuition fees during my degree(10.000€) as well as internships during the bachelor.
- Specialization in Systems, Control and Robotics.
- Bachelor's final thesis: "Deep learning based computer vision for aerial-view object detection and classification", at the Advanced Control Systems research group, which led to a conference publication.

## Publications

- Coll Josifov, R.; Masip Álvarez, A. and Lavèrnia Ferrer, D., "Deep learning techniques applied to traffic accidents prediction", *XLIII Jornadas de Automática 2022*.

## Work Experience

### Research Assistant

March 2021 - March 2022

MCIA CENTER INNOVATION ELECTRONICS, POLYTECHNIC UNIVERSITY OF CATALONIA

Terrassa, Spain

- Recipient of the Santander Bank-UPC initiation to research grant, working as an assistant to PhD student Ángel Fernández, and under the supervision of Dr. Miguel Delgado doing research in flexible production lines, within the industry 4.0 framework.
- Among my duties there were the development of software for PLCs to control an industrial plant model that increased its flexibility and allowed for a generic base upon which further diverse applications can be build, building the software infrastructure to allow for the digitization of the plant and to create a digital simulation of it, as well as the maintenance of the research group's lab webpage and supporting students doing their thesis within this area.

### Research and Development Intern

July - Aug. 2021

TAVIL IND, SAU

Olot, Spain

- Implemented LAN communication systems to interconnect several devices.
- Created a software to allow the automation of CNC files creation through a GUI.
- Developed control programs for a DC motor in BASIC.

### Commissioning Department Intern

Aug. 2020

TAVIL IND, SAU

Olot, Spain

- Commissioning of industrial robotic systems programming Kuka Robots
- Regression Analysis to adapt the industrial line to multiple products.

### Research and Development Intern

Aug. 2019

TAVIL IND, SAU

Olot, Spain

- Worked programming in structured text a PLC to control a bicycle simulator.
- Programmed industrial robots in Automation Studio with the help of computer simulations.

## Honors & Awards

2022 **First of promotion award**, Finishing first out of 51 in the 2022 Control Engineering promotion

Barcelona, Spain

2018 **Distinction**, University Access Exams, for a mark of 96%

Barcelona, Spain

## Skills

- Programming Languages: Matlab, C, C++, Java, Python
- Languages: English (CAE level C2), Catalan (Native), Spanish (Native)