Alessandro Canevaro

T.I.M.E. double degree student

I am a T.I.M.E. (Top International Managers in Engineering) double degree student currently pursuing an MSc in Control Systems Engineering at the University of Padua and an MSc in Computer Science and Engineering at the Technical University of Denmark. My interests lie in the area of Artificial Intelligence and Algorithms for Computer Vision and Robotics. I am an ambitious and hardworking person who is always eager to learn new skills.

Contact

Email
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Address
Copenhagen, Denmark

Expertise

Programming
Python (PyTorch, NumPy, Scikit-learn, Pandas), C/C++, Java, Matlab & Simulink.

Other
Linux, LATEX, Microsoft Office, Git, Docker, DVC, Google Cloud, OpenCV, ROS

Language

- English (proficient, IELTS 7.5)
- German (beginner)
- Italian (native)

Certificates

Huawei | Oct 2022
Certificate of completion of the Seeds for the Future program

Coursera | Jul 2022
Google Project Management: Professional Certificate

University of Padua | May 2018
Certificate of participation in the Formative Tutoring program

Hobbies

Photography and video making: winner of two prizes for video shooting and editing of a short film and an interview for the A.N.C.I.

Music: piano, Aviation, LEGO, Video games

Education

MSc in Computer Science and Engineering
Sep 2021 - Present
Technical University of Denmark
Lyngby, Denmark

- **Relevant courses:** Algorithm for Massive Data Sets, Perception for Autonomous Systems, Machine Learning Operations.
- **Project in Computer Vision:** built a tracking and position estimation software for moving objects on a conveyor belt with OpenCV and Python. Main tasks: camera calibration and rectification; object detection with background subtractor algorithms, position and velocity estimation with Kalman filtering techniques; object classification with CNN models.
- **Project in Autonomous navigation:** programmed simulated robotic system using ROS. Implemented path-planning and navigation algorithms for indoor scenarios.
- **Project in Machine Learning Operations:** developed a deep learning model in PyTorch for the sign language recognition problem with a focus on CI/CD pipelines on GitHub, automated testing, training monitoring, data visualization, and cloud deployment.

MSc in Control Systems Engineering
Oct 2020 - Present
University of Padua
Padua, Italy

- Top International Managers in Engineering **double degree** student.
- **Relevant courses:** Machine Learning, Computer Vision, Robotics and Control.
- **Project in Robotics:** analysis of the equations of motion for the SCARA robot; design of a PD with gravity compensation and a feedback linearization controller, for trajectory tracking purposes; implementation and testing in MATLAB and Simulink.
- **Project in Computer Vision:** developed a computer vision algorithm for image detection on boats datasets using OpenCV and C++. Great performances are achieved through a combination of traditional vision algorithms and modern machine learning approaches. Testing on multiple datasets with IoU metric.

BSc in Information Engineering
Oct 2017 - Jul 2020
University of Padua
Padua, Italy

- **Relevant exams:** Control Theory, Data Analysis, Algorithms for Engineering, Internet and Multimedia Laboratory.
- **Thesis:** Control systems for magnetic levitation trains: modelling and analysis of the levitation system; design and comparison of different control solutions.
- **Final Grade:** 110/110 cum laude (top 5% of students)

Experience

Research intern
Jun 2022 - Aug 2022
Bruno Kessler Foundation
Trento, Italy

- Internship in Dynamics on Complex Networks at the Complex Human Behaviour Lab.
- **Developed** computational techniques in C++ to study dynamical processes that occur on top of networked systems.
- **Data analysis** in Python of simulated and real-world networks leads to improved models that explain the underlying data.
- The use of efficient algorithms allowed to study networks with millions of nodes.

Projects

Matematica Dolce
Jun 2017 - Sep 2017
www.matematicadolce.eu
Verona, Italy

- Collaborated with the project coordinator (prof. D. Zambelli) in developing a program to automatically generate maths exercises for the **open-source** high school math books series Matematica dolce.
- The program allowed to generate dozens of exercises, and improve the content of the books
- Given the attained popularity, the books were translated into Lambda books for blind students.