

# Alessio Basili

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## EXPERIENCE

- **I.T.E.T. 'Bramante - Genga'** January 2022  
*Substitute professor for "Computer Science and Technology"* Pesaro, PU

## EDUCATION

- **Politecnico di Milano** Feb 2022 - Present  
*Master's Degree in Computer Science and Engineering* Milano, MI
- **Università degli studi di Urbino 'Carlo Bo'** Feb 2022  
*Bachelor's Degree in Applied Computer Science* Urbino, PU
- **Istituto Tecnico Industriale Statale 'Enrico Mattei'** July 2017  
*Diploma of Technical Institute of Information Technology and Telecommunications - Computer Science Specialization* Urbino, PU

## PROJECTS

- **Thesis: Porting of smart sensing algorithms from C# to Dart** 

I worked on the SmartRoadSense project, focused on road surface evaluation. After analyzing the existing algorithms in C# and understanding their functionalities, I studied Dart to adapt and implement the code following a proper paradigm. I completed the implementation and conducted a testing phase to ensure consistent and accurate results.

- **Self-hosted Surveillance Camera**

Developed an online surveillance camera system with video and photo recording capabilities, accessible via a self-hosted VPN server on a Raspberry Pi.

- **RESTful API: URL Shortener API** 

Deployed a Web Service on Heroku exposing RESTful APIs for URL shortening and management. Additionally, developed a Telegram Bot for the client side to provide easier access to the service.

- **IoT Device**

Designed and simulated an IoT device using COOJA, and processed data with Contiki, Node-RED and ThingSpeak via the MQTT protocol.

- **Performance evaluation of Application**

Modeled application behavior and performed performance evaluation using Python and the through Python and [Java Modeling Tool \(JMT\)](#).

## SKILLS

- **Programming Languages:** Python, Java, C, C#, HTML, PHP, SQL, Dart, XML, JavaScript, JSON
- **Database Systems:** PostgreSQL, MySQL, MongoDB
- **DevOps & Version Control:** GitHub
- **Mathematical & Statistical Tools:** MatLab, Python (Pandas, NumPy)
- **Other Tools & Technologies:** Office suites

## CERTIFICATIONS

- **EASA:** UAS Remote Pilot Open Category A1-A3
- **PF24:** Completion of the required 24 university credits for teacher qualification July 2021
- **BLS-D/PBLS-D:** Basic Life Support and Defibrillation certification for first aid March 2017
- **General Safety Training Course for Workers**

## VOLUNTEER EXPERIENCE

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- **Board Member and recording secretary**

*September 2014 - Present*

*A.S.D. Team RCM*

- Nationally Recognized Organized Racing and Motorsport Events
- Donation of profits to charity
- Decision-making skills and management

- **Football Referee**

*December 2017 - Present*

*FIGC - AIA*

- **President of the polling station and election scrutineer**

- **Qualified Course Marshal**

*ACI Sport*

Marshal at the World Rally Championship in Sardinia, in Roma Capitale and at the Italian Rally Championship

- **Blood donor**

*August 2019 - Present*

*AVIS*

## ADDITIONAL INFORMATION

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**Languages:** Italian (Native), English (Professional level)