

Vincenzo Barbuto

PhD Candidate

📍 Rende (CS), Italy

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🏠 Google Scholar

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in Vincenzo Barbuto

🆔 ORCID



Education

PhD in Information and Communication Technologies, University of Calabria [🔗](#)
Intelligence at the IoT Edge: models and techniques for enabling smartness in IoT systems.

11/2022 – present
Cosenza, Italy

M.S. Computer Engineering for the Internet of Things, University of Calabria [🔗](#)
Final Score 110/110 cum laude

09/2020 – 09/2022
Cosenza, Italy

M.S. in Data Science and Network Intelligence,
Télécom SudParis, Institut Polytechnique de Paris [🔗](#)
GAP 18,34/20

09/2021 – 07/2022
Évry, France

B.S. in Computer Engineering, University of Calabria [🔗](#)
Final Score 105/110

2017 – 2020
Cosenza, Italy

Professional Experience

Teaching Assistant, University of Calabria [🔗](#)
Assisted first-year students in learning the C programming language

03/2023 – present
Cosenza, Italy

Research Trainee - IoT and Digital Twins, DICE Lab [🔗](#)

- Implemented a **Traffic Monitoring System** based on **Digital Twins** and **Edge AI**
- 99,87% of bandwidth saved** with respect to a Cloud-centric approach
- inferences performed from 2 to 10 times faster** in the edge device than in a remote server

02/2022 – 06/2022
Évry, France

Software Engineer, Calìò Informatica S.R.L [🔗](#)

- Reduced the http request throughput of a platform that manages over five million invoices per year by **using the browser cache**
- Reduced the processing time of a huge number of downloaded invoices **by exploiting threads and parallelism in C#**
- Exploited SQL bulk functions** to reduce both the insertion and update time of warehouse's items in a Content Management System (CMS)

12/2020 – 09/2021
Cosenza, Italy

Projects

Diabetes Management System,
IoT system able to manage autonomously Type 1 Diabetes Mellitus patients

- Designed an improved IoT system using an **hybrid-fog network architecture** that exploits **in-network computing**
- Reduced computing time by 70% moving some computation from the cloud to edge and fog devices**

2022

Health Environment,
IoT system able to monitor remotely the environment of a home for elderly

- Acquired experience with MQTT protocol using OMA LwM2M semantic** for the topic definition
- Acquired experience with time series databases such as **InfluxDB**
- Processed, analyzed and displayed huge amount of data acquiring experience with tools such as **NodeRed, Grafana** and **OpenHAB**

2021

Vincenzo Barbuto

Publications

Disclosing Edge Intelligence: A Systematic Meta-Survey, MDPI

03/2023

Barbuto, V.; Savaglio, C.; Chen, M.; Fortino, G. Big Data Cogn. Comput. 2023, 7, 44.

Awards

Most deserving student, in Computer Engineering for the IoT

2022

Most dedicated and highest-achieving student among the Internet of Things (IoT) students within the Department of Computer, Modeling, Electronic, and System Engineering, University of Calabria for the academic year 2020-21 and 2021-22

DIMES Excellence Program, in Computer Engineering

2021

Outstanding undergraduate student in the Department of Computer, Modeling, Electronic, and System Engineering, University of Calabria for the academic year 2020-21

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