VALERIO BRUNACCI

CURRICULUM VITAE

dal 1994 Consorzio Interuniversitario AlmaLaurea
Un ponte fra Università e mondo del lavoro e delle professioni

I want to help transition to autonomous driving, focusing in particular on cooperative logistics tasks using UAVs.
My main research field is the development of cooperative localization systems using new types of lightweight and energy-efficient sensors.
I love challenges and I'm always ready to learn new concepts.
I graduated in Computer Engineering and Robotics in 2021 and worked part-time at Netter Srl for two years, a startup that produces software for edge computing.
Now I'm a PhD stude

FOREIGN LANGUAGE SKILLS

europass

MOTHER TONGUE(S): **Italian**

ENGLISH	B2	B2	B2	B2	B2
GOOD					

EXPECTATIONS AND FEATURES OF THE DESIRED JOB

INTENTION TO CONTINUE STUDIES: **Yes** / Activities for professional qualification

ECONOMIC SECTOR: **1.** recruitment and personnel selection / **2.** logistics and transportation / **3.** computer science, data processing and acquisition

CAREER FIELD: **1.** R&D and patents

DESIRED JOB: **R&D Engineer**

AVAILABILITY FOR BUSINESS TRAVELS: **Yes, including relocation**

AVAILABILITY TO RELOCATE ABROAD: **Yes, even in non-European countries**

WORK EXPERIENCES

Junior Software Engineer
NETTER SRL
Computer science, data processing and acquisition
PERUGIA (PG)
05/2020 - TODAY

Main activities and responsibilities: Development of next generation IAAS cloud platforms
Acquired skills and achieved objectives: Programming with nodejs, javascript, pythonand typescript, Docker and Ansible significantly improved. Correct exploitation of a team working tool like GitLab acquired. Programming with a view to optimization both in terms of performance and maintenance of the code itself (Pattern)
Employed as: apprentice - indeterminate length contract | Company sector: Engineering and design

Software Engineer
NETTER SRL
Computer science, data processing and acquisition
ASSISI (PG)
11/2020 - 03/2021

Main activities and responsibilities: Development of a system capable of guaranteeing the offloading of the load of a UAV drone on the edge cloud.
Focus on video stream optimization using Gstreamer and OpenCV (CUDA).
Functional internship for the Master's thesis
Acquired skills and achieved objectives: In-depth knowledge of Opencv, Linux kernel modules, Video encoding and decoding, Unix sockets, ROS, Visual odometry algorithms and similar (DSO, OpenVins) .Improved coding skills with Python.
Employed as: intern/trainee - undergraduate internship | Company sector: Engineering and design

ACADEMIC STUDIES

PH.D.
2021 - 2024
ONGOING STUDIES

Università degli Studi di PERUGIA
Faculty: Ingegneria Informatica e Robotica
Corso di Dottorato in Ingegneria Informatica e robotica
Expected graduation date: 2024

MASTER'S DEGREE
2018 - 2021
CERTIFIED TITLE

Università degli Studi di PERUGIA
Dipartimento di Ingegneria
Master's Degree Course in Computer Engineering and Robotics
specific field of the degree course: robotics
LM-32 - 2nd level degree in Computer engineering
Dissertation/thesis title: Development and testing of methodologies based on vision sensors for the real-time localization of autonomous drones by exploiting the off-loading of the computational load on external computing units using mesh architectures | Thesis supervisor: COSTANTE GABRIELE | Dissertation/thesis keywords: Offloading, Edge Computing, Visual

Odometry, UAV

Age at graduation: 25 | Official duration: 2 years
Final degree mark: **110/110**
Graduation date: 08/06/2021

BACHELOR'S DEGREE
2014 - 2018
CERTIFIED TITLE

Università degli Studi di PERUGIA
Dipartimento di Ingegneria
Three-year degree course in computer and electronic engineering
specific field of the degree course: ingegneria informatica
L-8 - 1st level degree in Information technology

Dissertation/thesis title: Analysis of Caching Techniques for Distributed Systems | Dissertation/thesis subject: Network Caching | Thesis supervisor: REALI GIANLUCA | Dissertation/thesis keywords: Network Caching, ICN, Icarus

Age at graduation: 22 | Official duration: 3 years
Final degree mark: **91/110**
Graduation date: 27/04/2018

SCIENTIFIC CERTIFICATE
ASSISI
2014

Scientific High School
L. SCIENTIFICO ANN. CONV. NAZ. ASSISI , ASSISI (PG)
School-leaving examination mark: **80/100**
Kind of secondary school diploma: Italian secondary school diploma

OTHER POSTGRADUATE STUDIES

2023

2023 IEEE RAS Summer School on Multi-Robot Systems
IEEE
(Czech Republic Prague, 2-9 July)
http://mrs.felk.cvut.cz/summer-school-2023/
I also came second in the virtual competition organised at the summer school

2022

International PhD School Italo Gorini 2022
GMEE
(Salerno, 5-9 September)
https://www.gmee.org/gorini2022/

FOREIGN LANGUAGE SKILLS

English English University Language Centre certificate, University Language Centre
University of Perugia, 13 Jul 2023 , **Europass level B2**

INFORMATION TECHNOLOGY SKILLS

COMPUTER PROGRAMMING

Relative Localization Systems (Advanced) | **Build Automation:** Docker (Advanced) , GitLab (Advanced) | **Firmware and software for the industial electronics:** Embedded Device (Intermediate) | **Javascript libraries:** nodejs (Advanced) | **Programming languages:** C++ (Intermediate) , MATLAB (Advanced) , Python (Highly Specialised)

SYSTEMS AND NETWORKS MANAGEMENT

Robot Operative System (ROS) (Advanced) | **Network architecture:** (Advanced) , UWB (Advanced) | **Operating systems:** (Highly Specialised)

CONFERENCES AND SEMINARS

CONFERENCES

2023 IEEE International Instrumentation and Measurement

24/05/2023

Technology Conference (I2MTC) , IEEE , Kuala Lumpur
Character: speaker
i2mtc2023.ieee-ims.org/

CONFERENCES
26/09/2022

2022 IEEE International Symposium on Measurements & Networking (M&N) , IEEE , Padua, IT
I presented the paper entitled:
'Development of a Cooperative Localization System using a UWB Network and BLE Technology'.
Conference webPage: https://mn2022.ieee-ims.org/
Character: speaker
mn2022.ieee-ims.org/

PUBLICATIONS

JOURNAL ARTICLES
2023

Valerio Brunacci, Alessio De Angelis, Gabriele Costante and Paolo Carbone, Development and Analysis of a UWB Relative Localization System
Review: Transactions on Instrumentation and Measurement
Publisher: IEEE
Submitted Paper

OTHER
2023

Valerio Brunacci, Alessio De Angelis, Experimental Comparison of UWB and Magnetic Ranging Systems in Robotics Applications
Other: Kuala Lumpur, Malaysia, 2023
Other: IEEE International Instrumentation and Measurement Technology Conference (I2MTC)
Other: pp. 1-6,
doi.org/10.1109/I2MTC53148.2023.10175959

OTHER
2022

Valerio Brunacci, Alessio De Angelis, and Gabriele Costante, Development of a Cooperative Localization System using a UWB Network and BLE Technology
Other: Padua,Italy,2022
Other: IEEE International Symposium on Measurements Networking (M&N)
Other: pp. 1–6
doi.org/10.1109/MN55117.2022.9887703

ADDITIONAL INFORMATION

I consider myself an extremely curious person.
I am in love with technology and its impact on the world.
I believe that multidisciplinary knowledge is essential for my professional training.
I like challenges and I am always ready to acquire new concepts.