

GIULIO BIONDI

PERSONAL INFORMATION

email

phone

addresses

RELEVANT EXPERIENCE

Over the course of my PhD degree and PostDoc grants, I worked on several Artificial Intelligence projects with the principal AI frameworks, e.g. Tensorflow and Pytorch, analysing large sets of data; I developed software mostly in the C++ and Python languages, used relational DBMSs and the SQL language for data storage, and the MATLAB software for deep learning/data science applications. I was also a lecturer on such topics in several courses at the University of Perugia and in private institutions. Since 2017 I am also the administrator of Unistudium, the official e-learning platform of the University of Perugia, with more than 30,000 active users. The task includes configuring, upgrading and maintaining the platform using web interfaces and FTP clients, installing plugins, connecting to external services (e.g. LTI-accessible services), configuring authentication through LDAP, and accessing/managing the platform databases the MySQL console and PHPMyAdmin; the Unistudium platform is hosted on IBM Blade servers, running the RedHat Linux operating system for the application and database servers, virtualized through VMWare-ESX with variable storage quota on virtual file systems, protected by firewall for the access to the platform and with access to FTP and DBMS reserved to the IP addresses in the University internal network and VPN. I was responsible for data migration tasks between various Moodle instances, e.g. archiving old materials on a dedicated platform, ensuring data integrity and coherence. Furthermore, since the early phases of the Covid-19 pandemic, I was part of the UniPG task force for remote learning; I developed software modules to process data and enable interoperability between the various platforms employed to ensure teaching continuity, i.e.:

- U-GOV, for the governance and management of the university;
- Unistudium;
- Microsoft Teams, for remote teaching;
- the Unipg Virtual room search application, developed by me to enable users to search virtual classrooms links, request access to reserved rooms, and keep track of the requests.

The position requires constant dialogue with the University IT department, responsible for the hosting software stack configuration of the platform, network redirection, DNS mapping, and firewall configuration. Additionally, since the beginning of my Ph.D. studies, I am responsible for the installation, system configuration, network configuration, and maintenance of the research machines of KITLab -

Knowledge and Information Technology Laboratory at the Department of Mathematics and Computer Science, University of Perugia. The machines, running Ubuntu 22.04 server edition and powered by NVIDIA RTX 3090 GPUs for GPU computing and Ryzen/Xeon/Threadripper processors, are accessible through the University of Perugia network through SSH and run the CUDA 11.8 stack, as well as a complete LAMPP instance for experiments data storage and elaboration; the necessary measures were implemented to secure the access to the machines, i.e. public/private key authentication, firewall configuration, and web-server and DBMS security configuration. Some of the machines were inter-connected through a private network for high-performance communication and NFS sharing. Finally, for courses in which I have covered Teaching Assistant or Teacher positions, e.g. with the Esebel University spin-off, I was required to setup Virtual Machines to provide students with pre-configured environments for teaching purposes, using VirtualBox or VmWare.

EDUCATION

<i>PhD in Computer Science</i>	2017-2021 Department of Mathematics and Computer Science, University of Florence/ University of Perugia
	PhD student in the XXXIII cycle of the Doctoral programme in Mathematics, Computer Science, and Statistics, programme in consortium between University of Florence, University of Perugia, Istituto Nazionale di Alta Matematica "F. Severi".
	Ph.D. Thesis: <i>Evolutionary Discovery of Binary-Similarity Correlations for Link Prediction</i> Tutor: Prof. Alfredo Milani, Dott. Valentina Franzoni
<i>Master in Computer Science</i>	2013-2017 Department of Mathematics and Computer Science, University of Perugia
	Master Degree in Computer Science, received on 20/04/2017 with 110/110 cum laude mark. Advisors: Prof. Alfredo Milani & Dr. Valentina Franzoni
<i>Bachelor of Computer Science</i>	2009-2013 Department of Mathematics and Computer Science, University of Perugia
	Bachelor Degree in Computer Science, received on 23/05/2013 with 110/110 cum laude mark. Advisors: Prof. Anna Martellotti & Prof. Sergio Tasso
<i>Diploma, II degree</i>	2004-2009 Science High School "Galileo Galilei", Perugia Science High School Diploma, mark 98/100

WORK EXPERIENCE

<i>UniPG</i>	12/2023- Current Post-Doc researcher, CENTRO DI RICERCA PER INNOVAZIONE, DIGITALIZZAZIONE, VALORIZZAZIONE E FRUIZIONE DEL PATRIMONIO CULTURALE E AMBIENTALE (CeDiPa), UNIVERSITY OF PERUGIA
<i>UniPG</i>	11/2022- 11/2023 Post-Doc researcher, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA Post-doc researcher, project <i>Systems and models for intelligent integration and</i>

		<i>monitoring of learning processes - sistemi e modelli per l'integrazione e il monitoraggio intelligente dei processi di learning.</i>
	12/2022- 02/2023	Lecturer, ITS UMBRIA
ITS Umbria		Teaching activity, course <i>Computer Science, Python Programming</i>
	10/2022- 12/2022	Lecturer, ECIPA UMBRIA
Ecipa Umbria		Teaching activity, course <i>Biomedical Images analyst - image processing expert (Analisi di immagini biomedicali-Esperto di Image Processing)</i> , topics introduction to the PHP language, relational databases, machine learning and the Python Language
	10/2022- 12/2022	Lecturer, ECIPA UMBRIA
Ecipa Umbria		Teaching activity, course "Data Scientist", topics: "Big data, planning, law, Project Work"
	09/2022	Lecturer, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA
UniPG		Teaching activity, course <i>Summer School: Python Bootcamp</i>
	09/2021- 09/2022	Post-Doc researcher, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA
UniPG		Post-doc researcher under the PRIN Project "THRAME - PHRASEOLOGICAL COMPLEXITY MEASURES IN LEARNER ITALIAN", Grant n.20178XXXFY from Italian Research Ministry.
	2020-present	Research and development team, UNIVERSITY OF PERUGIA
UniPG		Member of the COVID task Force for remote teaching and exams of the University of Perugia; member of the Research and Development team of the UniStudium platform, official e-learning platform of the University of Perugia
	01/2020- 04/2020	Lecturer, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA
UniPG		Teaching activity, course <i>Python Bootcamp</i>
	2017-present	E-Learning platform administrator, UNIVERSITY OF PERUGIA
UniPG		Administrator of the UniStudium platform, official e-learning platform of the University of Perugia.
	09/2020- 10/2020	Teacher Assistant, DEPARTMENT OF ECONOMICS, UNIVERSITY OF PERUGIA
UniPG		Student tutoring activity for the Informatics course, 1st year of Bachelor degree in Business Administration, academic year 2019-2020
	04/2019- 06/2019	Teacher Assistant, DEPARTMENT OF ECONOMICS, UNIVERSITY OF PERUGIA
UniPG		Student tutoring activity for the Informatics course, 1st year of Bachelor degree in Business Administration, academic year 2018-2019
	10/2017- 12/2017	Lecturer, ECIPA UMBRIA

<i>Ecipa Umbria</i>	Teaching activity, course "Smart- Corso: Tecnico della gestione di grandi moli di dati - Data Scientist"
	11/2016-04/2017 Teacher Assistant, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA
<i>UniPG</i>	Student tutoring activity and preparation of final projects for the Multimedia Systems course, 3rd year of Bachelor degree in Computer Science, academic year 2016-2017
	06/2016-07/2016 Teacher assistant, ESEBEL (UNIVERSITY OF PERUGIA SPIN-OFF), PERUGIA (ITALY)
<i>Esebel</i>	Work as a teacher assistant for the course "Building Intelligent Interactive Tutors: Adult trainee-centered strategies for lifelong e-learning. Erasmus+ KA1 for adult education staff mobility 2014-1-EL01-KA104-00125". Number of hours: 6
	04/2016-07/2016 Teacher Assistant, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA
<i>UniPG</i>	Student tutoring activity and exams assistance for the Java Programming course, 1st year of Bachelor degree in Computer Science, academic year 2015-2016
	02/2016-07/2016 Developer and Computer System Specialist, ICOSINT S.R.L., PERUGIA (ITALY)
<i>Icosint S.R.L.</i>	Development of new and improvement of existing tools for the Hydraulic Engineering laboratory at the DICA (Department of Civil and Environmental Engineering) of the University of Perugia
	09/2015 Robot and apps developer, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA
<i>EventItalia S.R.L.</i>	Collaboration with the Department of Mathematics and Computer Science, University of Perugia, for the development of new autonomous agents and improvement of existing ones Showcase of the agents during the "Todi Appy Days, 2nd edition" event
	09/2014 Robot and apps developer, EVENTITALIA S.R.L.
<i>EventItalia S.R.L.</i>	Collaboration with the Department of Mathematics and Computer Science, University of Perugia, for the development of autonomous agents Showcase of the agents during the "Todi Appy Days" event
	03/2014-06/2014 Teacher Assistant, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA
<i>UniPG</i>	Student tutoring activity for the Calculus course, 2nd year of Bachelor degree in Computer Science, academic year 2013-2014

INTERNATIONAL EXPERIENCES

	2017-2019 University of Perugia, Italy - London Southbank University, United Kingdom
<i>European Project</i>	Participation in meetings and educational activities in the scope of the European Union Project "InventEURs", project reference 580325-EPP-1-2016-1-ES-EPKA3-IP1-SOC-IN

<i>Exchange Programme</i>	2019	Hong Kong Baptist University, Hong Kong	Exchange period at the Department of Computer Science of Hong Kong Baptist University, Hong Kong. Research on Reinforcement Learning applied to traffic control problems.
<i>Tutoring activity</i>	2017	Internship tutor, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA	Internship tutor for the KitLab research group at the Department of mathematics and Computer Science, University of Perugia, during the VI summer exchange programme organized within the University of Perugia and Hong Kong Baptist University in June-July 2017
<i>Tutoring activity</i>	2014-2019	International student tutor, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, UNIVERSITY OF PERUGIA	Tutor for students from Hong Kong Baptist University during the III-VIII summer exchange programme (2014-2019) organized within the University of Perugia and Hong Kong Baptist University with the role of welcoming, logistic help and referral in English language
<i>Exchange Programme</i>	2017	Hong Kong Baptist University, Hong Kong	Exchange period at the Department of Computer Science of Hong Kong Baptist University, Hong Kong. Writing of Master Degree Thesis
<i>Erasmus+</i>	2014-2015	Politechnika Krakowska, Kraków (Poland)	Erasmus+ study period at Politechnika Krakowska in Kraków, Poland

RELEVANT SEMINARS

<i>Seminar</i>	<i>Academic Year</i> 2022/2023, <i>IInd semester</i>	Department of Mathematics and Computer Science, University of Perugia	Seminar on the ISO 27001 Standard in the context of the "Information Security Auditing, Certification and Digital Forensics" course
<i>Seminar</i>	<i>Academic Year</i> 2021/2022, <i>IInd semester</i>	Department of Mathematics and Computer Science, University of Perugia	Seminar on the ISO 27001 Standard in the context of the "Information Security Auditing, Certification and Digital Forensics" course
<i>Seminar</i>	<i>Academic Year</i> 2020/2021, <i>IInd semester</i>	Department of Mathematics and Computer Science, University of Perugia	Seminar on the ISO 27001 Standard in the context of the "IT security Planning and Elements of Forensic Informatics" ("Pianificazione della Sicurezza Informatica ed Elementi di Informatica Forense") course

QUALIFICATIONS

<i>Subject Expert (Cultura della Materia)</i>	2018/2023	Appointed as "Subject Expert" ("Cultore della Materia") for the "Software Engineering" ("Ingegneria del Software") course
---	-----------	---

	2018/2023	
<i>Subject Expert (Cullore della Materia)</i>		Appointed as "Subject Expert" ("Cullore della Materia") for the "IT security Planning and Elements of Forensic Informatics" ("Pianificazione della Sicurezza Informatica ed Elementi di Informatica Forense") course
OTHER ACADEMIC EXPERIENCE		
	07/2023	Athens (Greece), online
<i>Conference</i>		Participation in "The 23rd International Conference on Computational Science and its Applications (ICCSA 2023)"
	07/2022	Malaga (Spagna)
<i>Conference</i>		Participation in "The 22nd International Conference on Computational Science and its Applications (ICCSA 2022)" Workshop Organizer and Workshop Chair roles
	September 2021	Padova (Italy), online
<i>Conference</i>		Participation in "The 14th International Conference on Brain Informatics (BI 2021)" Workshop Organizer and Workshop chair roles
	September 2021	Cagliari (Italy)
<i>Conference</i>		Participation in "The 21st International Conference on Computational Science and its Applications (ICCSA 2021)" Workshop Organizer and Workshop chair roles
	July 2020	Cagliari (Italy), online
<i>Conference</i>		Participation in "The 20th International Conference on Computational Science and its Applications (ICCSA 2020)" Workshop Organizer and Workshop chair roles
	June 2020	Letterkenny (Ireland), online
<i>Conference</i>		Participation in "THE 31ST IRISH SIGNALS AND SYSTEMS CONFERENCE (VIRTUAL) (ISSC 2020)" Session Chair
	July 2019	Saint Petersburg (Russia)
<i>Conference</i>		Participation in "The 19th International Conference on Computational Science and its Applications (ICCSA 2019)" Workshop Organizer and Workshop chair roles
	December 2018	Turin (Italy)
<i>Conference</i>		Participation in "The Final Workshop of the 6th evaluation campaign EVALITA 2018"
	November 2018	Trento (Italy)
<i>Conference</i>		Participation in "The 17th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2018)"
	July 2018	Genova (Italy)
<i>Summer school</i>		Participation in "2nd International Summer School on Deep Learning 2018" summer school
	August 2017	Leipzig (Germany)
<i>Conference</i>		Participation in "2017 IEEE/WIC/ACM International Conference on Web