

Name	Giovanni Pignoni	Address	Via Nazionale 203
From	Italy		Pianoro BO, 40065, Italy
DOB	23.07.1992		
E-mail	pignoni.g@gmail.com	Languages	English - Proficient
Phone	0039 3483340669 (IT)		Italian - Native Speaker
	0047 46904106 (NO)		Norwegian - Basic communication

EXPERIENCE

2024-Ongoing

Consultant at Deep Blue S.r.l. in Rome, Italy

Working in Innovation projects in the fields of Manufacturing, Human-AI Teaming and Aviation.

- HARTU (Horizon EU) research project addressing the main challenges of part handling in manufacturing lines.
Personal Contribution, work on definition of factors affecting Human AI teaming and how to validate results of teaming.
- COGNIMAN (Horizon EU) Research project on difficult-to-automate manufacturing processes, such as glass fibre production and high-temperature metal production. *Personal Contribution*, work on definition of a Human AI teaming model validation of this model on use cases.
- R3-MYDAS (Horizon EU) Research project on reliability and replicability of remanufacturing processes. *Personal Contribution*, work on definition of future use cases, identification of critical decision points and human involvement.
- ACCOMPLISH (Horizon EU) Research project on simplifying and integrating compliance in data and AI operations for small and medium enterprises. *Personal Contribution*, work on the definition of future scenarios, user requirements and expectations.

2021-2024

Research scientist at IFE Institute for Energy Technology in Halden, Norway

Department of Humans and Automation, working in the Biometrics Lab (measurement of human performance) specialised in Eye-Tracking. Involved in project related to the use of Cognitive Workload and Situational Awareness for assessing control room operators, driving simulators and flight simulators.

2020-2021

Assistant Professor (Universitetslektor) at NTNU: Norwegian University of Science and Technology, Norway
Course Responsible IMT4205 - Research Project Planning.

Propaedeutic course to the master thesis, planning of a research project and information literacy.

Co-teaching IDG 1362 Introduction to user-centred design.

Introduction to the methods of user-centred design and research ethics.

Co-teaching IMT4316 - User-centred Information Architecture.

Information categorisation, Labelling, navigation and search.

Co-teaching IDG4112 - Tangible Interaction Design for Health Promotion.

Introduction to Arduino and physical prototyping.

Co-teaching IDG2002 - Colour Management.

Digital image reproduction technology and colour management components.

Teaching IDG1004 - Colour in Interface Design.

Colour-related aspects of universal design.

Ongoing research on cognitive workload measurement and quantification of human behaviour in collaboration with the Norwegian Royal Naval Academy.

2019-2020

Research Assistant in Human Factors at NTNU: Norwegian University of Science and Technology, Norway
Research on cognitive workload measurement and quantification of human behaviour. Implementation of computer vision and image processing systems using Python and OpenCV.

Teaching Assistant at NTNU: Norwegian University of Science and Technology, Norway
 Tutoring for "Physical and tactile Prototyping and Tangible Interaction Design for Health Promotion" with professor Anders-Petter Andersson. Raspberry Pi, Arduino, introduction to electronics, 3D printing and laser cutting.

2017-Ongoing

Freelance front-end developer, interaction designer, graphic designer in collaboration with multiple designers for the development of several websites.

Riccardo Zocche, redesign and development of the website and archive of Riccardo Zocche Studio studio, design by Supernulla.

Docselva & Docscandellari Online booking and contact for general practitioners, personal project.

Francesco Bertelé Artist's archive, portfolio and personal website, design by Simone Ellero.

Vud-Design Corporate Website and e-commerce for Vud-design, development and user experience design, in collaboration with Simone Ellero.

Ing. Gherardo Gotti Personal Website/Blog for Gherardo Gotti, expert in civil engineering. Development and user experience design, graphic design by Riccardo Govoni.

Trip to Emilia Personal Website for Linda Cavicchi, Tour Guide. Development and user experience design, graphic design by Riccardo Govoni.

Apio s.r.l. Corporate Website and illustrations for Apio, a small start-up that designs, produces and sells DIY solutions for the Internet of Things. In collaboration with Riccardo Govoni and Giammarco Gaudenzi.

2016-2017

Front-end developer, interaction designer, graphic designer at Studio Folder, agency for visual research specialised in exhibition design and data visualisation based in Milan, Italy.

Uncharted, ongoing research on the technologies behind digital cartography presented at *After Belonging*, Oslo Architecture Triennale 2016. Scraping with Python, data conversion into drawings with Processing, website development.

Italian Limes, ongoing research by Studio Folder on the drift of national borders due to global warming. Data analysis with Python.

CZA, redesign and development of the website and archive of Cino Zucchi Architetti studio. Custom WordPress theme design with Underscores.

The Value of the Land, Installation for *BIO 25-Faraway, So Close*, 25th Biennial of Design, Ljubljana. Concept and development of the remote installation (audio installation in the woods near Caporetto/Kobarid).

2013-2016

Graphic designer at Isia Urbino, Italy.

Development of a new graphical system for the internal bureaucracy and interactive forms as member of part of the Isia "Simplification Centre".

Research Assistant at Isia Urbino, Italy.

Development of a parametric typeface for use in the research project "Tipografia parametrica e Developmental Dyslexia" with Python, RoboFab and Robofont.

EDUCATION

2017-2019

Master in Interaction Design at NTNU: Norwegian University of Science and Technology, Norway – final grade A.

Thesis: Development of a quantitative evaluation tool of cognitive workload in field studies through eye tracking
 Development of a method for the measurement of cognitive workload in field conditions (eye-tracking and pupillometry) in collaboration with the Royal Norwegian Naval Academy.

Board member of the NTNU Gjøvik Designverkstedet (Norway). Organising the workshop and facilitating activities of the Maker-space.

2013-2016

Bachelor in Graphic Design and Visual Communication at ISIA Urbino, Italy – final grade 110/110.

Thesis: Interfaces and household appliances An historic research on the evolution of washing machines interfaces and an exploration of what an alternative approach to the “wash program” paradigm can be.

PUBLICATIONS

2025

Haavardtun P., Komandur S, Lunde P., Mjelde F. V., Pignoni G., Sharma A. & Volden F. (2025) Cognitive workload, eye-tracking, and communication: A mixed method study in a navigational training context. Necesses.

2023

Braarud, P. Ø., & Pignoni, G. (2023). Behavioral indicators-an approach for assessing nuclear control room operators' excessive cognitive workload? Human Factors and Simulation, 83(83).

2022

Pignoni, G., Komandur, S. (2023). Practical Challenges in Using Eye Trackers in the Field. In: Duffy, V.G., Ziefle, M., Rau, P.L.P., Tseng, M.M. (eds) Human-Automation Interaction. Automation, Collaboration, & E-Services, vol 12. Springer, Cham.

2020

Pignoni, Giovanni; Komandur, Sashidharan; Volden, Frode. (2020) Accounting for effects of variation in luminance in pupillometry for field measurements of cognitive workload. *IEEE Sensors Journal*

Streilein, Tim; Komandur, Sashidharan; Pignoni, Giovanni; Volden, Frode; Lunde, Petter; Mjelde, Frode Voll. (2020) Maritime Navigation: Characterizing Collaboration in a High-Speed Craft Navigation Activity. *Communications in Computer and Information Science*. Vol. 1224.

2019

Pignoni, Giovanni; Hareide, Odd Sveinung; Komandur, Sashidharan; Volden, Frode. (2019) Trial application of pupillometry for a maritime usability study in field conditions. Necesses. Vol. 4.

Pignoni, Giovanni; Komandur, Sashidharan. (2019) Development of a Quantitative Evaluation Tool of Cognitive Workload in Field Studies Through Eye Tracking. *Lecture Notes in Computer Science*. Vol. 11571.

2018

Pignoni, Giovanni. (2018) Effects of ambient illumination on text recognition for UI development. *2018 Colour and Visual Computing Symposium (CVCS)*; 19th and 20th September, 2018, Gjøvik, Norway.

2017

Luciano Perondi, W. Gerbino, B. Chia, R. Arista, G. Gaudenzi, G. Pignoni. (2017) Tipografia parametrica e Developmental Dyslexia, *Material Design Journal* №03 “Design Parametrico”

SUPERVISIONS OF MASTER THESIS PROJECTS

Jiixin Li, *How to Improve Clinical Delivery of Newborn Resuscitation and Respiratory Support at Birth* (Supervisor)
 Glorialba Rivera Marcano *PreViS. Usability Evaluation of a Prehospital Emergency Telemedicine System*. (Externalsupervisor)
 Art Jørstad Olson, *Visualizing research prototypes for a service dashboard and machine panel in radiographic workflow* (Co-supervisor)
 Chetana Pandit Karande, *Augmented Reality for Better Wayfinding Experiences* (Co-supervisor)
 Nakul Pathak, *Children in Online Environments - Their Protection, Awareness and the Parent's Role to Ensure Safe Usage* (Co-supervisor)
 Tim Streilein, *Maritime Navigation: Characterizing Collaboration in a High-Speed Craft Navigation Activity* (Co-supervisor)
 Ida Marie Solås, *Legibility on Mobile Phones in Bright Outdoor Conditions* (Co-supervisor)