Davide Gentile

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SUMMARY

- 8+ years of experience conducting user research, specializing in human factors and usability for software in safety-critical and highly regulated industries.
- Extensive expertise in qualitative and quantitative research methods, drawing insights from workshops, usability testing, risk assessments, and ethnographic studies to improve product design and corporate strategies.
- Proven leader with track record of mentoring junior researchers, driving adoption of best practices, and effectively communicating insights to executives across global teams.

PROFESSIONAL EXPERIENCE

Postdoctoral Researcher (Human Factors) Toronto, ON
Cognitive Engineering Laboratory, University of Toronto Sep 2024 – Present
The Cognitive Engineering Laboratory conducts applied human factors engineering research in safety-critical and regulated industries, often in collaboration with corporate partners.

- Leading five experimental projects (reporting to the principal investigator) to advance human factors engineering solutions for small modular reactor software, aiming to enhance human performance and safety across a $6B industry segment.
- Supporting the management of a $360,000 research budget, allocating resources to meet project milestones five months ahead of schedule.
- Overseeing international collaborations with industry and academic partners in Canada, the US, and Europe, ensuring research aligned with global regulatory standards for safety-critical systems.
- Mentoring a team of 6 junior researchers on human factors methodology and statistical analysis, resulting in 4 public presentations and 2 conference proceedings in 5 months, and to the development of one MSc thesis and two PhD dissertations.

Research Assistant (Human Factors) Toronto, ON
University of Toronto Jan 2018 – Jun 2024
In this role, I secured funding from the Mitacs Accelerate Program, Ericsson, and the Schwartz Reisman Institute for doctoral research on human performance impacts and usability of AI solutions in industrial process control, with a focus on condition-based maintenance.

- Led a multi-year research project in user interaction with ML solutions for decision assistance in condition-based maintenance.
- Published findings in 3 peer-reviewed journals and presented at 3 international conferences, elevating the lab’s profile and securing a total funding of over $115,000 CAD in three years.
- Recruited engineering students for human factors roles spanning from systematic literature reviews, data collection, labelling and analysis, for projects on automated driving and AI explainability in industrial process control.
- Trained 400+ engineering students in statistics, R programming, and human factors; Advised students on projects in human-centered system design for Toronto-based industry partners (e.g., Metro, Voilà, Kritik) from inception to delivery.

Data Science Consultant Toronto, ON
Armilla AI Jan 2024 – Jun 2024
Armilla AI is a Canadian company founded in 2020, specializing in AI assurance and risk management solutions. It focuses on evaluating AI model performance, conducting AI audits, and performing due diligence to ensure the quality and reliability of AI products.

- Developed model evaluation frameworks focused on user interaction with large language models.
- Conducted risk assessments and usability testing that reduced critical interface errors by 20%, directly aligning with national and international safety compliance objectives.
- Participated in client development meetings ensuring alignment between client needs, research and engineering solutions.

Human Factors Intern Vancouver, BC
Ericsson Jan 2018 – Jun 2024
Ericsson is a multinational telecommunications and networking company headquartered in Stockholm, Sweden. Founded in 1876, it is one of the world's leading providers of information and communication technology (ICT) services and equipment.

- Designed and evaluated products to enhance Ericsson's data scientists' interpretation of multiple ML models, reporting to Principal Data Scientists and Reliability Engineers.
- Conducted experiments, usability studies, and interview techniques for product use and development.
- Supported cross-functional collaborations between research and product development.

EDUCATION

PhD, Human Factors, University of Toronto 2019 – 2024
MSc, Cognitive Science of Language, McMaster University 2017 – 2019
BA, Lettere Moderne, University of Bologna 2014 – 2017

TECHNICAL SKILLS

Human factors engineering, user research methods (workshops, interviews, task analyses, surveys, risk assessments, ethnographic studies, formative evaluations, summative usability testing), research tools and platforms (UserZoom, UserTesting, Qualtrics, qualitative data analysis tools), data synthesis and analysis (R, Python), human-computer interaction principles and standards, storytelling and communication of research insights, stakeholder engagement, research strategy development, regulatory compliance for regulated industries, mentorship and leadership for junior researchers, project management and multitasking.

Updated: January 2025