Robin Bretin

PhD, Cognitive Engineer

Looking For a Postdoc !

Paris, FRANCE

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search 'Robin Bretin'

With a background in both computer science and applied cognitive psychology, I am a versatile 'Swiss army knife' researcher, equally at ease with technical and theoretical work in Human-Robot and Human-Computer Interaction. My expertise lies in Extended Reality, proxemic behaviors, and Human-Drone Interaction—the core pillars of my thesis project. A lifelong learner driven by the question 'but why?', I am passionate about tackling unresolved problems through innovative approaches—because the answers are out there, waiting to be uncovered.

Work

Research Activities

University of Glasgow, United Kingdom *January 2020 - January 2024*

Performed various research activities throughout my thesis as a PhD Student at the University of Glasgow.

- **Designed and conducted** in-person and VR-based user studies, employing Unity, C#, and Python drone programming.
- **Quantitative and qualitative** analysis of various data format using R.
- **Academic writing** (e.g., posters, journal and conference papers) leading to publications in top-tier peer-reviewed journals and conferences.
- **Presented published work** at international conferences, including CHI and INTERACT.
- **Reviewed papers** for CHI, HRI, CSCW, THRI, and ISMAR.
- Served as **1AC** for CHI LBW track.
- **Supervised** student projects and internships.

Research Visit

Chalmers University of Technology, Sweden *May 2023 - June 2023*

Led a project on drones' social cues impact on proxemics, in collaboration with local researchers including Dr. Mohammad Obaid.

- **Collaboration with multiple stakeholders.**
- **Adaptability to novel working environments.**

Human Factor Consultant Intern

SNCF/Human Design Group, France *May 2019 - June 2019*

Developed a methodology to assess human reliability in train conductor functions for the Autonomous Train project.

- **Collaborated with clients** to gather their needs, presenting findings and incorporating feedback to align the project outcomes with operational requirements.

Education

2024 – 2020

PhD in Computing Science and Psychology

Glasgow, United Kingdom

University of Glasgow

Social AI CDT

"Beyond Boundaries: Unveiling Human-Drone Proxemic Dynamics Using Virtual Reality"

Supervised by **Dr Mohamed Khamis** and **Prof. Emily Cross**

Conducting in-person user studies using virtual reality to understand Human-Drone Proxemics and inform Social Drone design.

2020 – 2017

Cognitive Engineer (Master 2 Level)

Bordeaux, France

The National Graduate School of Cognitive Engineering (ENSC)

Cognitics aims to understand and improve the flow of human-machine symbiosis, in terms of performance, substitution, safety, ease and comfort, and augment human through technologies.

Training: Cognitive Sciences, UX Design, Programming, Project Management

Awards

2023

IFIP TC13 Pioneers' Award for Best Doctoral Student Paper
INTERACT 2023
Recognized for exceptional contribution to doctoral research in Human-Computer Interaction.

Best Paper Reviewers' Choice Award
INTERACT 2023
Awarded for the best conference paper.

Skills

Software & Programming

Unity *(3D, XR)*
Latex *(Overleaf)* | Blender | GitHub | Python
C# | R *(statistics & visualisations)* | HTML *(Web dev)*
Drone Programming | Extended Reality (XR)

Research Skills

Mixed Methods | User Studies
Academic Writing | Physiological Data | Reviewing
Good Research Practice | Supervision | Presentation

Languages

French *Native*
English *Fluent*
Spanish *Intermediary*
German *Beginner*

Interests

Professional

Understanding Human Behaviour | XR
Social Robotics | Good Research Practice
Human–Drone Interaction | Mixed Methods

Hobbies

Self taught musician (*Guitar, Piano, Flûte*), CinePhile, Gamer, Nature, Sport enthusiast, Avid reader (dystopia, fantasy), Chess enthusiast...

Publications

More publications forthcoming (under review and in progress).

2024

Evaluating Transferable Emotion Expressions for Zoomorphic Social Robots using VR Prototyping
Shaun Macdonald, **Robin Bretin**, and Salma ElSayed
IEEE International Symposium on Mixed and Augmented Reality (ISMAR), Oct 2024
https://doi.org/10.1109/ISMAR62088.2024.00125

Expert, Guardian and Child Perspectives on Automated Embodied Moderators for Safeguarding Children in Social Virtual Reality
Cristina Fiani, **Robin Bretin** , Shaun Alexander Macdonald, and Mohamed Khamis, Mark Mcgill
Proceedings of the 2024 CHI Conference, *May 2024*
https://doi.org/10.1145/3613904.3642144

Co-existing with Drones: A Virtual Exploration of Proxemic Behaviours and Users' Insights on Social Drones
Robin Bretin, Emily Cross, and Mohamed Khamis
International Journal of Social Robotics (IJSR), *March 2024*
https://doi.org/10.1007/s12369-024-01111-7

2023

"Do I Run Away?": Proximity, Stress and Discomfort in Human-Drone Interaction in Real and Virtual Environments
Robin Bretin, Emily Cross, and Mohamed Khamis
Human-Computer Interaction – INTERACT, *Oct 2023*
https://doi.org/10.1007/978-3-031-42283-6_29

Big Buddy: Exploring Child Reactions and Parental Perceptions towards a Simulated Embodied Moderating System for Social Virtual Reality
Cristina Fiani, **Robin Bretin**, and Mohamed Khamis, Mark Mcgill
Proceedings of the 22nd Annual ACM Interaction Design and Children Conference, *June 2023*
https://doi.org/10.1145/3585088.3589374

Big Buddy: A Simulated Embodied Moderating System to Mitigate Children's Reaction to Provocative Situations within Social Virtual Reality
Cristina Fiani, **Robin Bretin**, and Mohamed Khamis, Mark Mcgill
Extended Abstracts of the 2023 CHI Conference, *April 2023*
https://doi.org/10.1145/3544549.3585840

2022

Co-existing With a Drone: Using Virtual Reality to Investigate the Effect of the Drone's Height and Cover Story on Proxemic Behaviours
Robin Bretin, Emily Cross, and Mohamed Khamis
Extended Abstracts of the 2022 CHI Conference, *April 2022*
https://doi.org/10.1145/3491101.3519750

The Feet in Human-Centred Security: Investigating Foot-Based User Authentication for Public Displays
Kieran Watson, **Robin Bretin**, Mohamed Khamis, and Florian Mathis
Extended Abstracts of the 2022 CHI Conference, *April 2022*
https://doi.org/10.1145/3491101.3519838

Thank you for considering my application.