

# Damien Mazeas

Researcher in 3D Immersive and Interactive Technologies, PhD

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## OBJECTIVE

Research Scientist with a strong background in HCI, human factors, industrial robotics, and remote presence. Skilled in developing and deploying user-centered XR solutions through user study design to solve real-world challenges in industrial design, digital engineering, and human behavior modeling. Available immediately.

## EXPERIENCE



### Assistant Professor

#### Beijing Normal University - Hong Kong Baptist University (BNBU)

09/2024 - 06/2025 📍 Zhuhai, China

- Designed and launched the university's 'Human-Computer Interaction' course, a 14-week syllabus with hands-on XR/UX labs for undergraduates (~ 63 students).
- Taught undergraduate courses, including 'IT for Success in Everyday Life and Work' (~ 80 students) and 'Computer Technology and AI Project' (~ 50 students).
- Supervised and mentored undergraduates (10 students) on their final year projects, guiding them from ideation to implementation in HCI, XR, and AI.



### Research Fellow

#### CNRS@Create

10/2023 - 09/2024 📍 Singapore

- Developed software frameworks based on Unity 3D, integrating Tobii eye tracking for human-drone interaction.
- Compared viewpoint conditions efficiency by conducting user studies and usability testing sessions with 38 participants.



### Solutions Engineer

#### Safran Landing Systems

03/2020 - 08/2020 📍 Gloucester, UK

- Assisted in the implementation of an augmented reality solution for the inspection of landing gear from requirement gathering to deployment.
- Collaborated with multidisciplinary teams of engineers and technicians to ensure the usability of the application and the success of its integration into existing workflows.

TUMCREATE

### Research Assistant

#### TUMCREATE

02/2019 - 08/2019 📍 Singapore

- Conducted user experiments with 34 participants on an industrial designer's tool for virtual prototyping.
- Developed applications in Unity 3D to support research on a VR ideation tool and mobility user preferences.

## EDUCATION



PhD in Manufacturing 09/2020 - 09/2023 📍 UK  
**Cranfield University**



Master's in Digital Engineering 09/2017 - 09/2019 📍 France  
**Arts et Métiers**



Professional Bachelor's in Industrial Design 09/2014 - 07/2017 📍 France  
**University of Poitiers**

## CERTIFICATION

**FANUC** - Standard Teach Pendant Programming - September 2021

## SKILLS

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### Programming & Tools

Python, R, C#, Unity 3D, Git, Docker, Power BI, OpenCV, HTML/CSS, Industry protocols (DDS, MQTT)

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### Immersive Technologies

Unity 3D, Vuforia, ARCore, Niantic SDK, IC.IDO, PiXYZ, XR systems (VIVE, QUEST, PICO, VARJO, HoloLens, Powerwall)

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### Data Engineering & Databases

SQL, Azure, MongoDB

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### 2D/3D prototyping Tools

PhotoShop, 3DS Max, SolidWorks, CatiaV5, Figma

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### Robotics

FANUC 6-axis robots, Universal Robots, PLC Programming, Arduino / Raspberry Pi, ROS 1G2

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### Languages

French (Native), English (Full working proficiency)

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### Other

Driving Licence

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## PUBLICATIONS

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**Mazeas, D.**, & Namoano, B. (2025). Study of Visualization Modalities on Industrial Robot Teleoperation for Inspection in a Virtual Co-Existence Space. *Virtual Worlds*, 4(2), 17. <https://doi.org/10.3390/virtualworlds4020017>

Medina Galvis, S. C., **Mazeas, D.**, Noël, F., & Erkoyuncu, J. A. (2024). Designing Immersive Tools for Expert and Worker Remote Collaboration. *CIRP Design* 2024, 591–596. <https://doi.org/10.1016/j.procir.2024.07.055>

**Mazeas, D.**, Erkoyuncu, J. A., & Noël, F. (2023). Telexistence-based remote maintenance for marine engineers. 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW) (pp. 407–413). IEEE. <https://doi.org/10.1109/VRW58643.2023.00089>

**Mazeas, D.**, Erkoyuncu, J. A., & Noël, F. (2023). A telexistence interface for remote control of a physical industrial robot via data distribution service. *Product lifecycle management. PLM in transition times: The place of humans and transformative technologies (IFIP Advances in Information and Communication Technology, Vol. 667, pp. 478–490)*. Springer. [https://doi.org/10.1007/978-3-031-25182-5\\_38](https://doi.org/10.1007/978-3-031-25182-5_38)

Stadler, S., Cornet, H., **Mazeas, D.**, Chardonnet, J.-R., & Frenkler, F. (2020). IMPRO: Immersive prototyping in virtual environments for industrial designers. *Proceedings of the Design Society: DESIGN Conference*, 1, 1375–1384. <https://doi.org/10.1017/dsd.2020.81>

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**Mazeas, D.** (2023). mazeasdamien/Inverse-Kinematics-Universal-Robot-Unity: UnityUniversalRobots (UnityUniversalRobots). Zenodo. <https://doi.org/10.5281/zenodo.15265718>

PhD thesis: Key principles for assessing and implementing remote inspection with telexistence capability  
<https://dspace.lib.cranfield.ac.uk/items/3d611b76-5604-4269-bd2b-e03835fcaad4>

Maintenance & Engineering: Emerging technologies to support asset management  
<https://www.maintenanceandengineering.com/2021/06/16/emerging-technologies-to-support-asset-management/>

Master's thesis: VR Application for Immersive Prototyping for Industrial Designers  
[https://artsetmetiers.primo.exlibrisgroup.com/permalink/33ENSAM\\_INST/2k4gsq/alma991000457379708026](https://artsetmetiers.primo.exlibrisgroup.com/permalink/33ENSAM_INST/2k4gsq/alma991000457379708026)

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*Publications under review (first author)*

*Elsevier Engineering: Human-Centric Design for Remote Inspection Digital Twin with Telexistence Capabilities.*

*Elsevier Computers & Education X Reality: Beyond Algorithms: Computer Science Undergraduates Explore Educational VR Ideation with ShapesXR*