

Lorenzo James

📍 Lille, France ✉ L.James@ieseg.fr ☎ +31-623347489 in Lorenzo James 🌐 Lorenzo456

Profile

Early-career researcher specializing in gamified health information systems and Artificial Intelligence. Currently working as an assistant professor in Information Systems, teaching courses on data management and software development. Experienced in developing research prototypes and systems, supervising students, and collaborating with interdisciplinary stakeholders. Strong background in AI, gamification, and software engineering, with a focus on designing practical solutions. Outside of the professional setting, develop retro games for legacy hardware using mid-level programming and creative problem-solving within the unique constraints of older architectures.

Experience

Assistant professor

IESEG School of Management

Lille, France

Aug 2025 – Current

- Researching health information system platforms, focusing on integrating persuasive design principles into entertainment-based health interventions. Investigating how intrinsically motivating design patterns and gamified mechanics can sustain user engagement with health behaviors. Projects are interdisciplinary, combining expertise from health sciences, game design, and information systems.
- Designing, coordinating, and delivering courses in Data Management Foundations, Database Management Systems, Data Preparation, and programming fundamentals (computing logic and algorithmic thinking), including lectures, practical sessions, and student assessment. Covering technical topics such as UML modeling, programming (Python, SQL, Scratch), database design (Relational and non-relational), data preparation, and system communication.
- Supervising MSc and BSc students on company-embedded projects and theses related to information systems and AI. Acting as their primary contact, guiding research methodology, technical implementation, and project delivery, while fostering both technical expertise and professional skills.

Visiting researcher

Automated Planning Lab, Heriot-Watt University

Edinburgh, UK

Aug 2024 – Sept 2024

- Initiated and established an international research collaboration on automated planning for digital health interventions, independently defining the research direction and project scope. Designed the planning models and research questions that led to the development of the APLES system, resulting in two conference publications and ongoing joint work including extensions toward rehabilitative robotics.
- Developed the open-source "[Automated Planning of Level Systems](#) " (APLES) tool for generating structured level progressions in digital health interventions, significantly reducing the effort required to design complex intervention structures.

Software Developer

Netcompany

Delft, Netherlands

Aug 2020 – Aug 2021

- Developed multiple full-stack web applications commissioned by the Dutch government and maintained direct contact with clients to ensure project alignment. Primarily used: .NET, React, and relational databases.
- Managed Azure CI/CD pipelines, tracking project builds across multiple environments (dev, test, acc, and prod). Maintaining project git version control, environment variables, and project secrets.
- Handled sensitive pension data of Danish citizens using CRUD operations on a relational database as part of the Danish pension system. Updating personal data, based on problem descriptions from the IT team.

Education

PhD in Information Systems

Technical University Eindhoven & Mental Health Institute of Central Netherlands

Eindhoven, Netherlands

Sept 2021 – Aug 2025

- My research focused on increasing the engagement of patients with Severe Mental Illnesses (SMI) with their treatment goals through an mHealth app that utilizes gamification and AI. The research involved software development, empirical studies, feasibility testing, and collaboration with stakeholders (such as patients, caregivers, students, and ethical professionals).

- Taught in the courses Design of Business Information Systems, Fundamentals of Business Information Systems, and Healthcare Information Systems by lecturing, supervising labs, and assessing coursework and exams, with topics including UML modeling, SQL and database design, business process modeling, object-oriented programming, REST APIs, low-code development, and software-design and testing.
- Successfully supervised five MSc students (leading to two publications: [one](#) and [two](#)), four BSc students (resulting in a [publication](#)), one game development intern (delivering [one](#), [two](#), [three](#) minigames), and one research intern (contributing to the development of a protocol for measurable goal creation for case managers of patients with severe mental illnesses).

MSc in Artificial Intelligence (with distinction)

Heriot-Watt University

Edinburgh, UK

Sept 2018 – Aug 2020

- My MSc thesis was titled: *Generating Video Game Puzzles using Automated Planning*. In this dissertation, I explored using classical planning (PDDL) with the Unity game engine to automatically generate 3D platforming puzzles, applying planning techniques to procedural game content beyond NPC-behavior.
- As president of the [Heriot-Watt Game Development Society](#), I organized and delivered tutorials and workshops, teaching game development concepts including Unity programming, data structures and algorithms, software engineering principles, and interactive game design, while mentoring peers and supporting project development.

BA in Game Design and Development

University of the Arts Utrecht

Utrecht, Netherlands

Sept 2014 – Aug 2018

- Specialized in the game programming track, and completed the bachelor's end project on [video game enemy AI](#) using finite-state machines, applying object-oriented programming principles, game logic design, and interactive gameplay mechanics in Unity3D to develop a "hit-and-run" enemy AI system that dynamically chases, retreats, and ambushes the player based on player behavior.
- Assisted in teaching the course Building Playful Worlds at the University of the Arts Utrecht, supporting students in programming interactive 3D game worlds using Unity3D, implementing game mechanics and enemy AI with finite state machines, and introducing programming concepts such as loops, conditionals, and object-oriented principles.

Academic Service

- Serving as acting area-editor and reviewer for the *EAI Endorsed Transactions on Pervasive Health Journal*, and served as reviewer for the *International Journal of European Information Systems*.
- Served as reviewer for the *International Conference on Information Systems 2026*, and the work in progress track for the international *GameFin 2026* conference.
- Serving as the track chair the Work-in-Progress and Doctoral Consortium tracks at the *International Conference of Entertainment Computing*.
- Served on the PC for the *UK Planning and Scheduling Special Interest Group*, the Workshop on Knowledge Engineering for Planning and Scheduling held at the *International Conference on Automated Planning and Scheduling (ICAPS) 2026*, and the *AI for Preventive Health Workshop*, held at the *Symposium on Engineering Interactive Computing Systems 2025*.
- Co-organizer of the 1st Roles of Planning in Games Workshop, held at *ICAPS 2026*.

Technical Expertise

- Artificial Intelligence and software-driven modeling for gamified digital health interventions and health information systems, including automated planning, digital twins, and mixed-methods research for design, evaluation, and deployment.
- Full-stack and interactive system development for research-driven applications, including Python, C#, C++, JavaScript, REST APIs, SQL/NoSQL databases, Git, game engines, and low code systems.

Selected Publications

For a full list of publications, see: [Google Scholar](#)

Caregiver's Evaluation of LLM-Generated Treatment Goals for Patients with Severe Mental Illnesses [10.1145/3652037.3663955](#)

2024

Toward Scalable Content Generation for Gamified mHealth Interventions: The Evaluation of LLM-Generated Goals on User Engagement
[Link](#)

2024