Gwendal Beaumont

Ph.D. student in Software Engineering



Education

2023 — Ph.D. — Software Engineering, IMT Atlantique & IMT Mines Alès, Brest, FR

Present Title of the thesis: TwinDevOps, an automated process for the deployment and dynamic evolution of Digital Twins.

2020 — 2023 Engineer's Degree — General Engineering, IMT Mines Alès, Alès, FR

One and a half year of general training and one and a half year in the Software Engineering and Artificial Intelligence Department.

Experience

Mar 2023 — Intern, ALTEN, Rennes, FR

Sep 2023 Research internship on the labelling process of data in order to be used with Machine Learning algorithms.

Detailed achievements:

- O Creation of a framework using Java Spring Boot to manage unlabelled data and get statistics from it
- O Creation of an interface using TypeScript and the Electron framework

May 2022 — Visiting International Scholar, Miami University, Oxford, OH, USA

Aug 2022 Internship as an assistant in the preparation of a master thesis on the effect of errors in agent-based simulation systems.

Detailed achievements:

- O Creation of a simulation framework in Python to take errors into account
- O Creation of multiple agent-based simulations in Python to test our framework

Leadership & Activities

2024 — Ph.D. students representative at the Student Board, EULiST Alliance

Present Institut Mines-Télécom Ph.D. students representative at the european level in the EULiST Alliance. This alliance integrates over 200,000 students and 20,000 staff at 10 universities in 10 countries.

2023 — Ph.D. students representative at the board of directors, Institut Mines-Télécom, FR

Present IMT Ph.D. students representative at the national level for two years. I take part in the board of directors and a work group focused on respect and equality.

- O Creation of a national Ph.D. students network
- O Creation of national events for Ph.D. students

2021 — 2022 Communication Manager, IMT Mines Alès student council, Alès, FR

Member of the communication managers team for the student council during a year.

- Administration of a website
- Management of social networks
- Answering and moderating emails and comments on social networks

Languages

French Native English Fluent (TOEIC: 975/990)

Spanish Intermediate Korean Basics

Computer skills

Coding C/C++, Dart, Java, JavaScript/TypeScript, Python

Infra Linux, Docker, Network, SQL

Articles

- [1] Gwendal Beaumont et al. "Towards Re-Engineering Digital Twins Preliminary Experiments on Three Use Cases". In: ACM/IEEE 27th International Conference on Model Driven Engineering Languages and Systems (MODELS Companion '24), September 22–27, 2024, Linz, Austria. Linz, Austria, Sept. 2024.
- [2] J. T. Beerman, G. G. Beaumont, and P. J. Giabbanelli. "On the Necessity of Human Decision-Making Errors to Explain Vaccination Rates for Covid-19: an Agent-Based Modeling Study". In: 2023 Annual Modeling and Simulation Conference (ANNSIM). Los Alamitos, CA, USA: IEEE Computer Society, May 2023, pp. 413–424. URL: https://doi.ieeecomputersociety.org/.
- [3] Jack T. Beerman, Gwendal G. Beaumont, and Philippe J. Giabbanelli. "A framework for the comparison of errors in agent-based models using machine learning". In: *Journal of Computational Science* 72 (2023), p. 102119. ISSN: 1877-7503. DOI: https://doi.org/10.1016/j.jocs.2023.102119. URL: https://www.sciencedirect.com/science/article/pii/S1877750323001795.
- [4] Jack T. Beerman, Gwendal G. Beaumont, and Philippe J. Giabbanelli. "A Scoping Review of Three Dimensions for Long-Term COVID-19 Vaccination Models: Hybrid Immunity, Individual Drivers of Vaccinal Choice, and Human Errors". In: Vaccines 10.10 (2022). ISSN: 2076-393X. DOI: 10.3390/vaccines10101716. URL: https://www.mdpi.com/2076-393X/10/10/1716.