

Nicolas Hubert , Ph.D. Candidate in Computer Science

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Education

- 2021 – 2024 📖 **Ph.D. in Computer Science.** University of Lorraine, Nancy, France.
Thesis title: *From Semantic-aware to Semantic-driven Knowledge Graph Embeddings for Link Prediction* (Ph.D. defense expected in June 2024).
Advisors: Dr. Prof. Armelle Brun and Dr. Prof. Davy Monticolo.
 Visiting Ph.D. Researcher (4 months). University of Mannheim, Germany.
 Advisor: Dr. Prof. Heiko Paulheim.
 Joint Publication: *Schema First! Learn Versatile Knowledge Graph Embeddings by Capturing Semantics with MASCHInE*. In K-CAP 2023 - 12th International Conference on Knowledge Capture, Pensacola, Florida.
- 2016 – 2020 📖 **M.Sc. in Applied Mathematics.** Centrale Nantes, Nantes, France.
Keywords: *Statistical inference, Machine Learning, Bayesian statistics, Probability.*
- 📖 **M.Sc. in Management-Engineering.** Audencia BS, Nantes, France.
Keywords: *Financial Markets, Corporate Finance, Supply Chain, Digital Marketing, IT.*

Employment History

- 2021 – 2024 (36 months) 📖 **Ph.D. Candidate.** University of Lorraine, Nancy, France.
- 2021 – 2021 (6 months) 📖 **Research Intern.** ERPI Laboratory, Nancy, France.
- 2020 – 2021 (5 months) 📖 **Applied Research Intern.** Nokia Bell Labs, Paris, France.
- 2019 – 2019 (5 months) 📖 **Machine Learning Engineer Intern.** Credit Suisse, Lausanne, Switzerland.
- 2018 – 2018 (2 months) 📖 **Hedge Fund Analyst Intern.** Altervest Ltd, Montreal, Canada.
- 2017 – 2017 (3 months) 📖 **Data Analyst Intern.** HedgeServ, Luxembourg, Luxembourg.




Research Publications

Journal Articles


- 1 **Hubert, N.,** Monnin, P., Brun, A., & Monticolo, D. (2023a). Sem@K: Is my knowledge graph embedding model semantic-aware? *Semantic Web*. Retrieved from
🔗 <https://www.semantic-web-journal.net/system/files/swj3508.pdf>

International Conference Articles


- 1 **Hubert, N.,** Paulheim, H., Monnin, P., Brun, A., & Monticolo, D. (2023). Schema First! Learn Versatile Knowledge Graph Embeddings by Capturing Semantics with MASCHInE. In *K-CAP 2023 - 12th International Conference on Knowledge Capture*, Pensacola, Florida, US. Retrieved from
🔗 <https://arxiv.org/pdf/2306.03659.pdf>
- 2 **Hubert, N.,** Monnin, P., Brun, A., & Monticolo, D. (2023b). Enhancing knowledge graph embedding models with semantic-driven loss functions (under review). 🔗 doi:10.48550/arXiv.2303.00286

- 3 **Hubert, N.**, Monnin, P., d'Aquin, M., Brun, A., & Monticolo, D. (2023). Pygraft: Configurable generation of schemas and knowledge graphs at your fingertips (under review).  doi:10.48550/arXiv.2309.03685
- 4 **Hubert, N.**, Brun, A., & Monticolo, D. (2022a). New Ontology and Knowledge Graph for University Curriculum Recommendation. In *ISWC 2022 - The 21st International Semantic Web Conference*, Hangzhou / Virtual, China. Retrieved from  <https://hal.archives-ouvertes.fr/hal-03768154v2/document>
- 5 **Hubert, N.**, Monnin, P., Brun, A., & Monticolo, D. (2022b). New Strategies for Training Knowledge Graph Embeddings: the Recommendation Case. In *EKAW 2022 - 23rd International Conference on Knowledge Engineering and Knowledge Management*, Bolzano, Italy. **Best Paper Award**. Retrieved from  <https://hal.inria.fr/hal-03722881v3/document>




International Workshop Articles

- 1 **Hubert, N.**, Monnin, P., Brun, A., & Monticolo, D. (2022a). Knowledge Graph Embeddings for Link Prediction: Beware of Semantics! In *DL4KG@ISWC 2022: Workshop on Deep Learning for Knowledge Graphs, held as part of ISWC 2022: the 21st International Semantic Web Conference*, Virtual, China. Retrieved from  <https://hal.archives-ouvertes.fr/hal-03787512/document>





National Workshop Articles

- 1 **Hubert, N.**, Brun, A., & Monticolo, D. (2022b). Vers un système de recommandation explicable pour l'orientation scolaire. In *Workshop EXPLAIN'AI - EGC Blois 2022*, Blois, France. Retrieved from  <https://hal.archives-ouvertes.fr/hal-03559471/document>

Skills

Languages	 Strong reading, writing and speaking competencies for English, French, and Spanish.
Coding	 PYTHON, R, SPARK, SPARQL, SQL.
Misc.	 Academic research, teaching, tennis, running, swimming.

Teaching

2024 – 2024 (16 hours)	 Semantic Web. University of Lorraine, Nancy, France. M.Sc. Year 1 Teaching coordinator: Mathieu d'Aquin
2023 – 2024 (48 hours)	 Advanced Mathematics. Lycée Henri-Poincaré, Nancy, France. B.Sc. Year 1 Teaching coordinator: Olivier Binda
2022 – 2023 (64 hours)	 Introduction to Java Programming. University of Lorraine, Nancy, France. B.Sc. Year 1 Teaching coordinator: Vincent Thomas
2021 – 2022 (64 hours)	 Advanced Database Systems. University of Lorraine, Nancy, France. B.Sc. Year 1 Teaching coordinator: Nadia Bellalem

Awards

Best Paper Award	 23rd Int. Conf. on Knowl. Engineering and Knowl. Management (EKAW 2022)
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