Robin Brochier

Engineer's degree and Ph.D. in Computer Science

62 rue Roger Mathurin
13010 Marseille, France
 0033 (0)6 30 41 67 85
 robin@brochier.com
 www.robinbrochier.com

Work Experience

2024	**Machine Learning Consultant**, *Freelance*, Marseille Machine learning research and development for various companies (NLP, generative AI, LLM prompt engineering, graph neural networks etc.).
2022-2023	**Senior Data Scientist**, *Farfetch*, Porto Machine learning research and development in the *Fashion Knowledge Graph* team at Farfetch, the global platform for luxury fashion.
2020-2021	**Postdoctoral Researcher**, *LIS Lab - TALEP Team*, Marseille Research in graph machine learning and natural language processing for humanities and social sciences.
2016-2020	**Machine Learning Developer**, *Digital Scientific Research Technology*, Lyon Research and development for the recommender system of Peerus, a web application dedicated to scientific literature monitoring.
2014–2016	**Student Assistant**, *Fraunhofer Institut IPK*, Berlin Two-years working 15 hours a week on several projects: embedded systems programming, web development and data science applied to production management.
2013–2014	**Project Manager and Developer**, *Fraunhofer Institut IPK*, Berlin One-year internship designing and building a web application helping firms to safely share their processes together and to reduce the risks in product design.
2012	**Computer Technician**, *ST Microelectronics*, Crolles Two-month internship in an electronic factory at ST Microelectronics dealing with the robotic automation system.

Education

2017–2020	**Ph.D. in Computer Science**, *ERIC, Université Lyon 2*, Bron PhD in close collaboration with a company (CIFRE convention with Digital Scientific Research Technology, Lyon) about representation learning for document networks with application to the scientific literature.
2016	**Engineer's Degree**, *CPE Lyon*, Lyon Department of electronics, telecommunications and computer science.
2015–2016	**Master's Thesis**, *TU Berlin / CPE Lyon*, Berlin Ten-month research and development of a robotic simulator for relational reinforcement learning.
2014–2015	**TU Berlin**, *Berlin*, Fifth year of higher education Department of machine learning and intelligent data analysis with emphasis in deep neural networks.
2011–2013	**CPE**, *Lyon*, Third and fourth year of higher education Department of electronics, telecommunications and computer science.
2009–2011	**Preparatory Classes** 2 years full-time higher education in science with specialty in mathematics and with general studies. **Scientific Project** Development of a prototype of a driverless car.
2009	**Scientific Baccalaureate** French secondary school leaving certificate.

Skills

French	Native speaker.	
English	Good	*Cambridge English exam (C1).*
German	Good	*Gœthe-Institut exam (B2).*
IT	Programming skills	*Python, PyTorch, JAX, TensorFlow, Spark, Databricks, C++, Linux, LaTeX & more.*
Communities		*https://github.com/brochier* *https://stackoverflow.com/users/6084245* *https://datascience.stackexchange.com/users/17208/robin*

Extra-curricular activities

Hobbies	Field Hockey, Cycling, Running, Mountaineering, Gardening, Cooking, Music, Board Games & more

Publications

Conferences:

- Brochier, R. and Béchet, F. (2021). **Predicting Links on Wikipedia with Anchor Text Information.** *44th International Conference on Research and Development in Information Retrieval, SIGIR 2021.*
- Brochier, R., Guille, A., and Velcin, J. (2020). **Inductive Document Network Embedding with Topic-Word Attention.** *42nd European Conference on IR Research, ECIR 2020.*
- Brochier, R., Guille, A., and Velcin, J. (2019). **Global Vectors for Node Representations.** *In Proceedings of the 2019 World Wide Web Conference. International World Wide Web Conferences Steering Committee.*

Workshops:

- Brochier, R., Gourru, A., Guille, A., and Velcin, J. (2020). **New datasets and a benchmark of document network embedding methods for scientific expert finding.** *In Bibliometric-enhanced Information Retrieval: 10th International BIR Workshop at ECIR.*
- Brochier, R., Guille, A., and Velcin, J. (2019). **Link Prediction with Mutual Attention for Text-Attributed Networks.** *In Companion of the The Web Conference 2019. International World Wide Web Conferences Steering Committee.*
- Brochier, R., Guille, A., Rothan, B., and Velcin, J. (2018). **Impact of the Query Set on the Evaluation of Expert Finding Systems.** *In BIRNDL 2018 at SIGIR.*

Thesis :

- Brochier, R. (2020). **Apprentissage de Représentation dans les Réseaux de Documents : Application à la Littérature Scientifique (Representation Learning in Document Networks : Application to the Scientific Literature).** *Université Lumière Lyon 2.*

Others:

- Brochier, R. (2019). **Representation Learning for Recommender Systems with Application to the Scientific Literature.** *In Companion of the The Web Conference 2019. International World Wide Web Conferences Steering Committee.*
- Brochier, R. (2019). **Apprentissage de Représentation appliqué à la Recommandation pour la Littérature Scientifique.** *In Conférence jointe CORIA-EARIA 2019.*
- Brochier, R., Guille, A., Velcin, J., Rothan, B., and Cioccio, D. (2018). **Peerus Review : Un Outil de Recherche d'Experts Scientifiques. (Peerus Review: a tool for scientific experts finding).** *In EGC 2018.*

Teaching

University:

- **Java Coding Course (2020 - Aix Marseille Université):** I supervised exercises and tutorials, wrote and corrected exams, simultaneous with face-to-face and remote students. The course focused on object-oriented programming and on the basic libraries for Java.
- **Linear Algebra and Data Analysis (2019 - Université Lyon 2):** I supervised exercises and tutorials, wrote and corrected exams. The course was divided in two parts, first linear algebra with vector spaces, system solving, matrices and diagonalization and then data analysis with straight application of linear algebra using Matlab.

Mentoring:

- **Data Science Mentor (2021 - OpenClassRooms):** I supported students (in career change) in their data science training.