



Arthur Hoarau

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[Lannion, France](#)

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Summary

After completing my Master's degree in engineering, with a specialization in data science, I pursued a PhD in machine learning. Throughout my career, I've had the opportunity to work for major French corporations as well as startups. However, I've decided to transition my focus to research and teaching. I served as the Co-Founder and President of ADL, and I also have teaching assignments at the University of Rennes.

Education

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|---|-------------------|
| University of Rennes. PhD, Computer Science | Lannion, France |
| <ul style="list-style-type: none">Data Science - Active Learning, Theory of Belief Functions.Teaching assignments. | 2021 - 2024 |
| ESIEA. <i>Diplôme d'ingénieur</i> , Master's degree in Computer Science | Laval, France |
| <ul style="list-style-type: none">Master's Degree in Engineering (Digital Sciences and Technologies).Major courses in Data Science. | 2015 - 2020 |
| Metropolia University of applied Sciences. Information Technology. | Helsinki, Finland |
| <ul style="list-style-type: none">Student at Metropolia University in Helsinki (Finland).C++, Internet of Things, Object-Oriented programming, Data communication. | 2017 - 2018 |

International research mobility

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| Ludwig-Maximilians-Universität. International mobility, Research | München, Germany |
| <ul style="list-style-type: none">Research on uncertainty representation & quantification (Joint publication). | 2024 |

Invited speaker

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| Breizh Data Day | Saint-Brieuc, France |
| <ul style="list-style-type: none">INNÔZH | 2024 |
| “Assises départementales de la Recherche et de l’Innovation” | Saint-Brieuc, France |
| <ul style="list-style-type: none">“Conseil départemental des Côtes-d’Armor” | 2023 |
| “Journée des doctorants de Lannion” | Lannion, France |
| <ul style="list-style-type: none">Host speaker | 2023 |
| DKM Days | Rennes, France |
| <ul style="list-style-type: none">Roud-table on laboratory life | 2023 |

Experience

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| IRISA. DRUID Team, PhD | Rennes, France 2021 - 2024 |
| <ul style="list-style-type: none">• Active learning of imprecise and uncertain data.• Teaching assignments for the University of Rennes. | |
| ADL. Co-Founder and President | Lannion, France 2022 - 2024 |
| <ul style="list-style-type: none">• Promote research through the doctorate. | |
| Weexa/Beefirst. Engineer | Paris, France 2021 |
| <ul style="list-style-type: none">• I decided to explore the world of startups before focusing on what motivates me the most: research and teaching. | |
| Thales. Data Science, Apprenticeship | Rennes, France 2019 - 2020 |
| <ul style="list-style-type: none">• Innovation project poised between Cybersecurity and Big Data.• Deployment of a new platform for testing resilience to computer attacks using data collection, processing and machine learning. | |
| Capgemini. Software Engineer, Internship | Nantes, France 2019 |
| <ul style="list-style-type: none">• Service center which maintains and upgrades applications for the SNCF customer.• Mobile and back office development, continuous integration, customer relations. | |

Teaching

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| Machine Learning | 8 H - IUT 2023 - 2024 |
| <ul style="list-style-type: none">• Course design and Lecture | |
| Recommendation system | 26 H - IUT 2023 - 2024 |
| <ul style="list-style-type: none">• Course design• Learning and assessment situation project (SAE) | |
| Optimization methods for decision support | 13 H - IUT 2023 - 2024 |
| <ul style="list-style-type: none">• Lecture and Tutorial Sessions | |
| Apprenticeship supervision, 2 students | 2023 - 2024 |
| Internship supervision, 2 students | 2023 - 2024 |
| Database exploitation | 22 H - IUT 2022 - 2023 |
| <ul style="list-style-type: none">• Tutorial Sessions• Learning and assessment situation project (SAE) | |
| Introduction to programming (C Language) | 42 H - IUT 2022 - 2023 |
| <ul style="list-style-type: none">• Tutorial Sessions• Learning and assessment situation project (SAE) | |
| Development quality, Human-Computer interaction | 22 H - IUT 2021 - 2022 |
| <ul style="list-style-type: none">• Tutorial Sessions• Learning and assessment situation project (SAE) | |
| Introduction to programming (C Language) | 40 H - IUT 2021 - 2022 |
| <ul style="list-style-type: none">• Tutorial Sessions | |

Publications

PrePrint

- Quantitative analysis of uncertainty quantification measures.** *PrePrint* 2024
A Hoarau, Y Sale, P Hofman, E Hüllermeier
- DEMAU: Decompose, Explore, Model and Analyse Uncertainties.** *PrePrint* 2024
A Hoarau, V Lemaire

International Journal

- Evidential random forests.** *Expert Systems With Applications*, 230. 2023
A Hoarau, A Martin, JC Dubois, Y Le Gall
- Evidential uncertainty sampling for active learning.** *Machine Learning*. 2024
A Hoarau, V Lemaire, A Martin, JC Dubois, Y Le Gall

International Conference (with peer review)

- A mean distance between elements of same class for richer labels.** *International Conference on Belief Functions*. Springer International Publishing. 2024
A Hoarau, C Thierry, A Martin, JC Dubois, Y Le Gall
- Datasets with rich labels for machine learning.** *IEEE International Conference on Fuzzy Systems*. Incheon, Korea, p 1-6. 2023
A Hoarau, A Martin, JC Dubois, Y Le Gall
- Imperfect labels with belief functions for active learning.** *International Conference on Belief Functions*. Springer International Publishing, p 44-53. 2022
A Hoarau, A Martin, JC Dubois, Y Le Gall
- Real bird dataset with imprecise and uncertain values.** *International Conference on Belief Functions*. Springer International Publishing, p 275-285. 2022
C Thierry, A Hoarau, A Martin, JC Dubois, Y Le Gall

National Conference (with peer review)

- Méthode crédibiliste pour l'extraction d'incertitudes sans dépendance aux observations.** *Extraction et Gestion des Connaissances*. p 207-214. 2024
A Hoarau, V Lemaire, A Martin, JC Dubois, Y Le Gall

Articles Review

- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases.** 1 article - 2024
- International World Wide Web Conference** 2 articles - 2024
- Extraction et Gestion des Connaissances** 1 article - 2024

Additional Experience

- SIPTA Summer School (2022)**
- É-EGC Winter School (2022)**

Certificate - Bayesian statistics (2022): University of California, Santa Cruz.

Certificate - Machine Learning (2021): Stanford University.

Certificate - TOEIC: 920/990.

Awards - ESIEA Tech'Day: 1st Prize (2018). 1st Prize (2017)

Workshops - Scientific Posters - Training sessions - Organisation of multiple PhD Days