Alexandre Adam

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Github • Google Scholar • LinkedIn

Professional Summary

Researcher transitioning into industry with expertise in deep learning and statistical modeling. Proven record of publishing in top journals and cross-domain collaboration. Experienced in presenting to technical audiences.

Technical Skills

- Programming: Python, LaTeX
- Tools: Git, PyTorch, Tensorflow, JAX, scikit-learn

Work Experience

Graduate Research Assistant, Université de Montréal   *2020–Present*
- Published 9 peer-reviewed articles and 7 workshop papers
- Presented at international conferences for astronomy (AAS) and machine learning (NeurIPS, ICML)

AI Engineer (Intern), Intact Insurance   *Summer 2018*
- Developed machine learning solutions for record linkage

Data Science (Intern), Intact Insurance   *Summer 2019*
- Developed a recommender systems for call centers
- Interpretability with Shapley values

Teaching Assistant, Université de Montréal   *2020–2025*
Tutor, School Success   *2018–2020*

Education

Ph.D., Physics, Université de Montréal   *2022–Present*
- Advisor: **Laurence Perreault-Levasseur**
- Research focus: **High-dimensional Bayesian Inference in Astronomy**

M.Sc., Physics, Université de Montréal   *2020–2022*
- Advisor: **Laurence Perreault-Levasseur**
- Research focus: **Recurrent Inference Machines and Gravitational Lensing**

B.Sc., Physics, Université de Montréal   *2017–2020*
- Overall GPA: 4.0/4.3

Selected Projects

score-models (GitHub · PyPI)
A PyTorch interface to train diffusion models
Roles: Creator, API design, maintainer
Impact: 57⋆; used in 5+ publications
Tech: PyTorch, JAX

caustics (GitHub · PyPI)
Differentiable simulator for gravitational lensing
Roles: Co-creator, API design, documentation
Impact: 45⋆; used in 5+ publications
Tech: PyTorch, Jupyter book

Awards

- IVADO MSc excellence scholarship · 40 000$ *2020*
- NSERC graduate research doctoral program · 115 000$ *2023*
- Hydro-Québec scholarship (Declined) · 20 000$ *2023*

References

Available upon request.