Gbetondji Jean-Sebastien Alexandre Dovonon

CONTACTS

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RESEARCH INTERESTS

Geometric Deep Learning
Generalisation and Robustness
Neural Algorithmic Reasoning

EDUCATION

Doctor of Philosophy, Computer Science September 2022 - *present*
University College London Foundational AI CDT, London, UK
Supervised by: Matt Kusner and Michael Bronstein

Master of Science, Machine Intelligence January 2021 - May 2022
African Institute for Mathematical Sciences, Mbour, Senegal
Thesis: Iterative Weight Prediction with Graph Hypernetworks
Supervised by: Michael Bronstein

Bachelor of Science, Computer Science September 2016 - May 2020
Ashesi University, Berekuso, Ghana
Thesis: Scalable Automated Machine Learning
Supervised by: Abdul Wasay

RESEARCH EXPERIENCE

Research Scientist June 2023 - *present*
Matterhorn Studio, Oxford, UK
- Applying multi-fidelity Bayesian optimisation to material design

Research Intern January 2022 - April 2022
Vector Institute, Toronto, Canada (remote)
- Supervision: Rahul G. Krishnan

Undergraduate Thesis August 2019 - May 2020
Ashesi University, Berekuso, Ghana
- Project: Scalable Automated Machine Learning [download here]
- Description: Implemented and tested various algorithms for parallel Bayesian optimization used for neural architecture search on multiple GPUs.
- Supervision: Abdul Wasay

PUBLICATIONS

1. Georgy Tyukin, **Gbetondji JS Dovonon**, , Jean Kaddour, Pasquale Minervini - **Attention Is All You Need But You Don't Need All Of It For Inference of Large Language Models** - ICML 2024 Workshop on Theoretical Foundations of Foundation Models

2. Abdul-Hakeem Omotayo, Ashery Mbilinyi, Lukman Ismaila, Houcemeddine Turki, Mahmoud Abdien, Karim Gamal, Idriss Tondji, Yvan Pimi, Naome A Etori, Marwa M Matar, Clifford Broni-Bediako, Abigail Oppong, Mai Gamal, Eman Ehab, **Gbetondji Dovonon**, Zainab Akinjobi, Daniel Ajisafe, Oluwabukola G Adegboro, Mennatullah Siam - A **Survey on African Computer Vision Datasets, Topics and Researchers** - arXiv preprint arXiv:2401.11617

3. **Gbetondji JS Dovonon**, Michael M Bronstein, Matt J Kusner - **Setting the Record Straight on Transformer Oversmoothing** - arXiv preprint arXiv:2401.04301

4. **Gbetondji JS Dovonon**, Jakob Zeitler - **Long-run Behaviour of Multi-fidelity Bayesian Optimisation** - NeurIPS 2023 Workshop on Adaptive Experimental Design and Active Learning in the Real World

5. Abdul Hakeem Omotayo, Mai Gamal, Eman Ehab, **Gbetondji Dovonon**, Zainab Akinjobi, Ismaila Lukman, Houcemeddine Turki, Mahmoud Abdien, Idriss Tondji, Abigail Oppong, Yvan Pimi, Karim Gamal, Mennatullah Siam - **Towards a better understanding of the computer vision research community in africa** - Proceedings of the 3rd ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization

6. A Lynch, **GJS Dovonon**, J Kaddour, R Silva - **Spawrious: A benchmark for fine control of spurious correlation biases** - arXiv preprint arXiv:2303.05470

ACADEMIC AWARDS	***Full Scholarship*** - *African Masters of Machine Intelligence* January 2021 - May 2022 (Acceptance rate: 6%)

COMPETITIONS

1. AMMI 2021 Kaggle In-Class competition - Cassava disease classification
   - First

2. Zindi CGIAR Wheat Growth Stage Challenge (October 2020)
   - Top 5% (11th/204)

3. Zindi Basic Needs Basic Rights Kenya - Tech4MentalHealth (July 2020)
   - Top 1% (7th/501)

4. Google HashCode 2019
   - First at national level (Ghana)