

Rares Dolga

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Computer Science student ranked third in class and PhD candidate focused on probabilistic machine learning, specialising in efficient long sequence generation. Seeking opportunities in ML and quantitative research.

Education

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- University College London**, Foundational AI CDT MPhil/PhD. Candidate Sept 2023 – Sept 2026
- NLP research for efficient long sequence learning using probabilistic machine learning techniques.
- University College London**, MEng in Computer Science Sept 2016 – Aug 2020
- Average Degree 87%: Intro to Deep Learning (99%), Graphical Models (93%), Information Retrieval (94%), Statistical NLP (86%), Multi Agent AI (85%), Data Mining (84%)

Experience

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- AI Scientist Intern (Part-time)**, UiPath – London, UK March 2024 – Present
- Creating efficient models for long sequences
- AI Researcher**, J.P. Morgan – London, UK April 2022 – Sept 2023
- Leading NLP research in finance, on documents and long text sequences. Financial and operations automation.
 - Paper under review SEIP 2023. SAM: Smart Actionable Monitoring for software applications
- Quantitative Developer**, J.P. Morgan – London, UK Sept 2020 – April 2022
- Data Analytics team, implementing scalable time series databases and quantitative pricing models.
 - Built unified access to real-time and historical pricing data distributed on multiple machines. Provided different views and statistics of the raw dataset (KDB+/Q, Python).
- Technology Intern**, J.P. Morgan – London, UK June 2019 – Sept 2019
- Worked as Java backend developer in the Algorithmic Trading team - software for monitoring apps.

Publications/Projects

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- Latte: Latent Attention for Linear Time Transformers - ICML NGSM Workshop** Apr 2024
Rares Dolga, Lucas Maystre, Marius Cobzarencu, David Barber
doi.org/10.48550/arXiv.2402.17512
- RotRNN: Modelling Long Sequences with Rotations - ICML NGSM Workshop** June 2024
Kai Biegun*, *Rares Dolga**, Jake Cunningham, David Barber
10.48550/arXiv.2407.07239
- Tax: A fully sharded data parallel trainer in Jax** Sept 2024
Rares Dolga: github.com/raresdolga/tax

Skills

Technologies: Python, Pytorch, Jax, Q/KDB+, Java, Linux, Git, ECDL
Languages: Fluent in English, Native Romanian speaker

Interests and Achievements

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- Awards**
- “Ambassador’s Diploma” award - for the best Romanian Student in UK during 2018-2019 academic year
 - UCL and British Computer Science award - for client consulting and applied software development
 - 2nd Place Mathematics “Caius Iacob” contest
 - 2nd Place out of 30 people, Computer Science C/C++ Regional Contest-Optimization
 - 4th Place out of 40 people, “Traian Lalescu” Intercounty Mathematics Olympiad
- Organisations and Activities**
- Microsoft Student Partner (2017-2019)