Rares Dolga

Computer science student with the third-highest mark in the class. PhD candidate Interested in probabilistic machine learning largely focusing on methods for efficient language generation. I am seeking opportunities in machine learning, data science and quantitative research.

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EDUCATION

University College London Foundational AI CDT MPhil/PhD. Candidate   **Oct 2023 - Present, London UK**
- NLP research for efficient long sequence learning using probabilistic machine learning techniques.

University College London *Bachelors & Master degree in Computer Science*   **Sep 2016 - Jun 2020, London UK**
- Average Degree 87%: Intro to Deep Learning(99%), Graphical Models(93%), Information Retrieval(94%), Statistical NLP (86%), Multi Agent AI(85%), Data Mining(84%)

National College "Moise Nicoara"   **Sep 2012 - Jun 2016, Arad RO**
- Romanian Baccalaureate (out of 10): Mathematics 9.95, Computer Science 10

WORK EXPERIENCE

UIPath AI Scientist Intern   **Mar 2024 – Jun 2024, London UK**
- Creating efficient models for long sequences, by re-parameterising attention with latent variables.

J.P. Morgan AI Researcher   **Apr 2022 – Sep 2023, London UK**
- 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

J.P. Morgan Quantitative Developer   **Sep 2020 – Apr 2022, London UK**
- 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)

J.P. Morgan Technology Summer Analyst   **June 2019 - Sep 2019, London UK**
- Worked as Java backend developer in the Algorithmic Trading team - software for monitoring apps

RegulAltion Intern   **Jun 2018 - Sep 2018, London UK**
- Java backend programmer developing software to support FinTech companies with regulatory registration

PROJECTS/RESEARCH

RotRNN: Modelling Long Sequences with Rotations
- Next Generation of Sequence Modeling Architectures Workshop at ICML 2024

Latent Attention for Linear Time Transformers
- Next Generation of Sequence Modeling Architectures Workshop at ICML 2024

Machine Executable Contracts with Deep Learning
- 2020 International Conference on Computational Science and Computational Intelligence, Las Vegas.

TEACHING

COMP0080: Graphical Models, University College London   **Oct 2023 - Dec 2023, London UK**

TECHNICAL SKILLS AND COMPETENCIES

- **Technologies:** Python, Pytorch, Spacy, Q/KDB+**,** Java**,** C/C++, Linux, Git, ECDL
- **Other Skills:** Adaptable to multicultural environments, Team spirit, Good communication, Leadership
- **Languages:** Fluent in English, Native Romanian speaker

INTERESTS AND ACHIEVEMENTS

Awards   **2014 - 2020**
- "Ambassador's Diploma" award - for the best Romanian Student in the UK during the 2018-2019 academic year
- UCL and British Computer Science award - for client consulting and applied software development
- 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) - Gaining leadership experience by organising hackathons and talks