Senior Machine Learning Scientist (UK Remote)

Description

Company Description

Turnitin is a recognized innovator in the global education space. For more than 20 years, Turnitin has partnered with educational institutions to promote honesty, consistency, and fairness across all subject areas and assessment types. Over 16,000 academic institutions, publishers, and corporations use our products and services.

At Turnitin, working remotely is our default. We respect local cultures, embrace diversity, and we respect personal choice. Turnitin is headquartered in Oakland, with offices in Dallas, Pittsburgh, Newcastle (UK), Stockholm (Sweden), Cologne (Germany), Amsterdam (Netherlands). Our diverse community of colleagues is unified by a shared desire to make a difference in education. Our remote-first culture allows for every employee to get the same access to learning and career opportunities, and it enables us to think differently about where and how we recruit talent from all kinds of diverse backgrounds.

Job Description

Machine Learning is integral to the continued success of our company. Our product roadmap is exciting and ambitious. You will join a global team of curious, helpful, and independent scientists and engineers, united by a commitment to deliver cutting-edge, well-engineered Machine Learning systems. You will work closely with product and engineering teams across Turnitin to integrate Machine Learning into a broad suite of learning, teaching and integrity products.

We are in a unique position to deliver Machine Learning used by hundreds of thousands of instructors teaching millions of students around the world. Your contributions will have global reach and scale. Billions of papers have been submitted to the Turnitin platform, and hundreds of millions of answers have been graded on the Gradescope and Examsoft platforms. Machine Learning powers our AI Writing detection system, gives automated feedback on student writing, investigates authorship of student writing, revolutionizes the creation and grading of assessments, and plays a critical role in many back-end processes.

Responsibilities and Requirements

We expect Senior Machine Learning Scientists to be versatile and have a well-balanced set of skills. You will focus on model training, with significant capacity for research (developing novel model architectures), dataset construction, and model hardening (preparing the model and code for production pipelines).

Day-to-day, your responsibilities are to:

- Work with subject matter experts and product owners to determine what questions should be asked and what questions can be answered.
- Work with subject matter experts to curate, generate, and annotate data, and create optimal datasets following responsible data collection and model maintenance practices.

- Answer questions and make trainable datasets from raw data, using efficient SQL queries and scripting languages, visualizing when necessary.
- Develop and tune Machine Learning models, following best practices to select datasets, architectures, and model parameters.
- Utilize, adopt, and fine-tune Language Models, including third-party LLMs (through prompt engineering and orchestration) and locally hosted LMs.
- Stay current in the field – read research papers, experiment with new models and LLMs, and share your findings.
- Optimize models for scaled production usage.
- Communicate data insights, as well as the behavior and limitations of models, to peers, subject matter experts, and product owners.
- Write clean, efficient, and modular code, with automated tests and appropriate documentation.
- Stay up to date with technology, make good technological choices, and be able to explain them to the organization.

Qualifications

Required Qualifications

- Experience working with text data to build predictive models, both supervised and unsupervised.
- A strong understanding of the math and statistics behind machine learning theory and fluency with general machine learning domains such as classification, regression, unsupervised clustering and recommender engines.
- Software engineering background with 2-3 years of experience (we use Python, SQL, Unix-based systems, git, and github for collaboration and review).
- Machine Learning development skills, including experiment tracking (we use AWS SageMaker, Hugging Face, transformers, [PyTorch](), scikit-learn, Jupyter, Weights & Biases).
- An understanding of Language Models, using and fine-tuning, encoding and decoding, and a familiarity with industry-standard LM families (such as BERT, GPT, and Bloom).
- Bachelor's or Master's degree in Computer Science, Statistics, Applied Mathematics or related field, with relevant industry experience, or outstanding previous achievements in this role.
- Excellent communication and teamwork skills.
- Fluent in written and spoken English.

Would be a plus

- Familiarity in coding for at-scale production, ranging from best practices to building back-end API services or stand-alone libraries.
- Essential dev-ops skills (we use Docker, AWS EC2/Batch/Lambda).
- Familiarity in building front-ends (LLMs or more standard React, Javascript, Flask) for simple demos, POCs and prototypes.
- Experience with advanced prompting, fine-tuning or training an LLM, open-source or cloud, using industry accepted platforms (such as mosaic.ai or stochastic.ai).
- Showcase previous work (e.g. via a website, presentation, open source code).

Additional Information

Total Rewards @ Turnitin

Turnitin maintains a Total Rewards package that is competitive within the local job market. People tend to think about their Total Rewards monetarily — solely as regular pay plus bonus or commission. This is what they earn in exchange for what they do. However, Turnitin delivers more than just these components. Beyond the intrinsic rewards of making a difference in the lives of educators, administrators, learners and researchers around the world, and thriving in an organization that is free of politics and full of humble, inclusive and collaborative teammates, the extrinsic rewards at Turnitin include generous time off and health and wellness programs that offer choice and flexibility and provide a safety net for the challenges that life presents from time to time. In our Remote-First approach to collaborating, you are also able to work the way that best fits your style and situation – whether that be remote, in one of our offices/rented spaces, or hybrid.

Our Mission is to ensure the integrity of global education and meaningfully improve learning outcomes.

Our Values underpin everything we do.

- **Customer Centric** – We realize our mission to ensure integrity and improve learning outcomes by putting educators and learners at the center of everything we do.
- **Passion for Learning** – We seek out teammates that are constantly learning and growing and build a workplace which enables them to do so.
- **Integrity** – We believe integrity is the heartbeat of Turnitin. It shapes our products, the way we treat each other, and how we work with our customers and vendors.
- **Action & Ownership** – We have a bias toward action and empower teammates to make decisions.
- **One Team** – We strive to break down silos, collaborate effectively, and celebrate each other's successes.
- **Global Mindset** – We respect local cultures and embrace diversity. We think globally and act locally to maximize our impact on education.

Global Benefits

- Flexible/hybrid working
- Remote First Culture
- Health Care Coverage*
- Tuition Reimbursement*
- Competitive Paid Time Off
- 4 Self-Care Days per year
- National Holidays*
- 2 Founder Days + Juneteenth Observed
- Paid Volunteer Time*
- Charitable contribution match*
- Monthly Wellness Reimbursement/Home Office Equipment*
- Access to Modern Health (mental health platform)
- Parental Leave*
- Retirement Plan with match/contribution*

* varies by country

Seeing Beyond the Job Ad

At Turnitin, we recognize it's unrealistic for candidates to fulfill 100% of the criteria in a job ad. We encourage you to apply if you meet the majority of the requirements because we know that skills evolve over time. If you're willing to learn and evolve

alongside us, join our team!

Turnitin, LLC is committed to the policy that all persons have equal access to its programs, facilities and employment. All qualified applicants will receive consideration for employment without regard to age, race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or status as a protected veteran.

How the process will look like

Your teammates will gather all requirements within our organization. Then, once priority has been discussed, you will decide as a team on the best solutions and architecture to meet these needs. In continuous increments and continuous communication between the team and stakeholders, you're part of making data play an even more important (and understood) part withing Brand New Day.

Job Benefits

GBP 102K – 163K *