With almost 7000 employees, the European Patent Office (EPO) is the second-largest public service institution in Europe. It supports innovation, competitiveness and economic growth across Europe through a commitment to high-quality and efficient services delivered under the European Patent Convention, its founding treaty. It has a yearly budget of EUR 2.3 billion, entirely financed by the fees paid by its users.

The EPO is looking for a data scientist in Principal Directorate Information Management (PD IM) to strengthen the PD's capabilities and specifically to support the implementation of new use cases for artificial intelligence (AI).

PD IM delivers IT services to many thousands of patent examiners, support staff and other involved parties, not only in-house, but worldwide.

It has some 400 permanent staff, as well as a number of managed service providers, working on IT and information processing, with a professional and proactive focus on supporting the EPO's different business processes.

As a new era of technological development characterised by digital transformation dawns, our society is drowning in data - but all that data is worth nothing if we can't use it to derive insights.

Thanks to its position at the forefront of technology, the EPO has the tools and skills to guide this transformation with a clear picture of evolving trends.

The EPO is one of the leading suppliers of patent information, and the hard data at our disposal can help us to reliably identify and follow developments as we head into this period of great change. Our Espacenet database, for example, provides free access
online to a wealth of more than 100 million patent documents containing data about inventions and technological advances from around the world. Paired with the expertise of our patent examiners, these tools are a reliable resource for conducting meaningful studies on the emergence of technology trends and their development over time and across economic regions.

We are looking for a highly motivated and passionate data scientist to use machine learning and advanced analytical techniques to create solutions for our business processes.

Located in Munich/The Hague and reporting direct to the Deputy CIO, you will join a highly qualified team already working on various machine learning use cases.

As data scientist, you will use a variety of complex datasets to tell us stories about our business by developing new modelling techniques, visualisation and analytical pipelines.

In this role, you will be able to have an immediate impact on operating success, and using AI techniques (machine learning, computer vision, etc.), you will bring the right solutions to the whole organisation.

You will also be responsible for conducting research and devising solutions that work for our users. You may also be required meet direct with IM management to demonstrate solutions, answer questions regarding capabilities and requirements, and work to resolve issues that arise during the development cycle.

**Your main responsibilities**

As data scientist, you will

- provide input on the strategic direction of technology investments to assist in the development of AI-driven projects and maximise the return on technology investment
- define and design models and solutions within the agreed reference architecture to help stakeholders and internal customers meet their business objectives
- develop, test and implement AI solutions and report on delivery commitments to ensure solutions are implemented as expected and within agreed time frames
- evaluate options for new AI-based solutions and services
- incorporate requirements and features in solution designs
- use machine learning and analytical techniques to create solutions to business problems
- interact with stakeholders and internal customers to understand the business problems and opportunities and translate them into analytical solutions
- design, develop and assess innovative models to support the patent grant examination process
- provide regular insight and analysis, by analysing large amounts of historical data

What we expect from you

- Diploma of completed studies at master's level or higher (PhD) in a numerical subject (maths, statistics, computer science, engineering, science) and relevant professional experience
- Experience in applying machine learning and advanced analytical techniques to solve business problems
- Passion for analysing data and ability to efficiently manipulate datasets
- Experience in using Python libraries and frameworks (Tensorflow, Pytorch, Pandas, etc.)
- Inquisitive mind and willingness to make the difference
- Ability to work analytically and conceptually, ability to prepare clear and comprehensive input for senior management decisions
- Strong communication skills, fostering transparency and clear understanding
- Knowledge and practical experience working in natural language processing (NLP) use cases would be a plus

Your qualifications

- Diploma of completed studies at master's level or - in exceptional cases - equivalent professional experience.
- Generally, an excellent knowledge (at least C1) of one official language (English, French and German) and ability to understand the other two. In exceptional cases, excellent knowledge (at least C1) of one official language and working knowledge (at least B2) of another. In such cases, the willingness to learn the third language and to reach level B2 within three years would be required.
- Citizenship of one of the member states of the European Patent Organisation.

Time frame: It is intended to hold the interviews in week 11, in The Hague/Munich.

Job Group: 4
Grade: G7-10 (net (basic) monthly salary* for this vacancy: EUR 5 680 to 8 050, depending on experience)

Duration of appointment: five years

Career Path: Technical

Location: The Hague/Munich

Application Deadline: 15.02.2019

* after deduction of EPO internal tax and before deduction of staff contributions to the social-security and pension schemes. The salary level depends on experience.

To foster gender diversity, EPO encourages applications from female candidates. The EPO is an equal opportunities employer and supports workforce diversity as a signatory to the Diversity Charter (Charta der Vielfalt) since 2010. All applications for vacant positions will be welcomed and considered on the professional merits of the applicant against the role profile for the position regardless of nationality, ethnic origin, gender, sexual orientation, marital status, disability, parental responsibilities, age, religion or belief.