



Data Science Internship Opportunities Center for Research in Sports Administration (CRSA) in cooperation with UEFA

In cooperation with the *UEFA Intelligence Centre*, the CRSA offers three paid data science internship positions. Applicants will submit a general application and will be assigned to a specific project at a later stage based on skills and interests. The ideal candidates will contribute to the following UEFA projects. Candidates, who are interested in using the data for their thesis are also welcome to apply.

- Women's Football Data Landscape Development
- On-Pitch Football Spatial Analytics
- Application of Advanced Data Science for Strategic Off-Pitch Research

I) Women's Football Data Landscape Development

UEFA aims to design and implement the most comprehensive database for strategic off-pitch Women's Football data. This project will specifically focus on collecting and blending various strategic data from sources related to domestic and international competitions, player performances, development of the game, fans, and more. If you're excited about cutting-edge football analytics, we want to hear from you.

Main Responsibilities

- Automate the integration of Women's Football related data from various repositories.
- Develop a data model for sourced data and establish structured data tables to be accessed and analysed by business analysts.
- Support integration of data model within Snowflake environment.
- Blend and enrich data related to business needs.
- Support business analysts analyse and visualise final table outputs.

II) On-Pitch Football Spatial Analytics

UEFA is seeking a passionate Data Scientist with expertise in spatial analytics. You will use advanced algorithms and data analysis to enhance decision-making and drive innovation in on-pitch football research. We're looking for a self-starter with a deep enthusiasm for football and a commitment to advancing our data insights. If you're excited about cutting-edge football analytics, we want to hear from you.

Main Responsibilities

- Contribute to innovative research in football analytics, exploring new methods and technologies to advance our understanding of on-pitch actions.
- Oversee the collection, cleaning, and organization of complex data sets to ensure scalable data pipelines, accuracy and usability for analysis.
- Design and implement advanced algorithms and analytical models to extract actionable insights from on-pitch football data.





III) Application of Advanced Data Science for Strategic Off-Pitch Research

UEFA is seeking a passionate Data Scientist interested in the field of Document Understanding (AI). You will use advanced algorithms to enable the entire process of extracting, interpreting, and interacting with unstructured text, like PDFs, using various techniques such as OCR, NLP, and machine learning models. If you're excited about cutting-edge football analytics, we want to hear from you.

Main Responsibilities

- Build an efficient system for processing and extracting content from PDF documents, ensuring scalability for future enhancements and diverse document types.
- Design a robust pipeline to enable the retrieval of relevant information from unstructured PDF data, facilitating accurate responses to user queries.
- Demonstrated ability to proactively identify opportunities for improvement, propose innovative ideas, and investigate emerging technologies to enhance the system.
- Document the system architecture, processing workflows, and methodologies to ensure the solution is reproducible, maintainable, and scalable.

Technical Skills Required

We are looking for reliable candidates with a solid foundation in Python and a strong willingness to learn. While prior experience with all tools and technologies is not expected, applicants should demonstrate curiosity, adaptability, and an interest in applying data science to real-world challenges in football. During the internship, you will have the opportunity to work with or gain exposure to:

- Python libraries such as Pandas, NumPy, and Scikit-learn; experience with spatial analytics tools (e.g., GeoPandas, Shapely) is a plus.
- Techniques for data manipulation, enrichment, and sports-specific modeling.
- API integration, cloud-based environments (e.g., AWS S3), and data platforms such as SQL and Snowflake.
- Visualization tools including Tableau or Dataiku for communicating analytical insights.
- Core concepts related to Large Language Models (LLMs), such as embeddings and tokenization.
- Frameworks for document understanding and conversational AI (e.g., LangChain, Ollama, and related open-source tools).
- Development of web-based data applications using tools like Streamlit, Dash, or Shiny; front-end technologies (HTML, CSS, JavaScript)

Familiarity with some of these tools is considered an asset, but not a requirement.

Location

Students can work remotely or use one of the office desks at Plattenstrasse 14, 8032 Zurich.



Duration

3 months (depending on availability)

Application

We are accepting rolling applications and will conduct interviews for suitable candidates within the next weeks. Please send your CV and motivation letter to marco.pereira@crsa.uzh.ch