

Position Offered: POSTDOCTORAL RESEARCHER

Project: *Developing Scalable and Standardized AI Tools for Register- Based Administrative Data Collection, Organization, and Analysis*

Technological and scientific fields: Demographics, Artificial Intelligence (AI), Big Data processing technologies, Image analysis and computer vision, Ethical aspects of AI

Location: Madrid, IEGD-CSIC (CCHS), <http://iegd.csic.es/?q=en>

Research Group/PI: Demographic dynamics, Diego Ramiro Fariñas

PROJECT SUMMARY

This project leverages cutting-edge AI technologies, including deep learning and computer vision, to automate the extraction and organization of data from historical handwritten documents. By developing scalable multimodal AI tools, we aim to transform digitized images into structured, linked data, enhancing the reuse of statistical and administrative records. This initiative will create a rich longitudinal database, enabling the generation of new, valuable statistical products and revolutionizing data sharing and analysis.

PROFESSIONAL PROFILE

Minimum requirements:

PhD degree in Demography, Geography, Statistics or Data Science.

Minimum 5 years of experience (including international collaboration) working with population data, including census and administrative records.

Strong foundation in statistical analysis and data management, including proficiency in statistical software (e.g., R, SAS, SPSS) and database management systems (e.g., SQL).

Proficiency in Spanish and English, both written and spoken.

Merits to be considered:

Knowledge of administrative and statistical data sources and protocols.

Experience in demographic and epidemiological research using diverse data types (e.g. satellite images).

Active participation in relevant conferences/meetings and a strong professional network in statistical and administrative data management.

Familiarity with image classification techniques and handling unstructured data.

WHAT IS OFFERED

This project offers an exciting opportunity for candidates to develop and implement advanced AI tools for the collection, organization, and analysis of historical and administrative data. Participants will gain expertise in cutting-edge technologies, including deep learning, computer vision, and natural language processing, to transform handwritten documents into structured, usable data. Research stays at leading institutions will provide international experience and specialized training in data integration, privacy, and ethical AI practices. The project aims to create a unique longitudinal database, enhancing the understanding of demographic trends and statistical products. This experience will significantly boost candidates' professional skills in data science and AI, making a meaningful impact on statistical data management and societal research.

Contract conditions:

Indefinite contract for a Postdoctoral Researcher associated to the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (41.000 € - 52.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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