OeAW - Discovering the future

As a central non-university institution for science and research, the **Austrian Academy of Sciences - OeAW** has the task of **"promoting science in every respect"**. Founded in 1847 as a learned society, it now has over 760 members and around 1,800 employees dedicated to innovative basic research, interdisciplinary knowledge exchange and the dissemination of new insights. The OeAW initiates and maintains partnerships worldwide and represents Austria in international scientific organizations; it cooperates with numerous institutions in the scientific field in order to actively **shape the research landscape**.

Student Research Assistant (f/m/x)

Job ID: OeAI032STUD226

The Austrian Archaeological Institute (OeAI) of the Austrian Academy of Sciences (OeAW) is seeking for the interdisciplinary research project **LEGION** (machine **LE**arnin**G**-enabled **I**dentification of archaeological **O**bjects in the middle da**N**ube river basin) a

Student Research Assistant (f/m/x)

Starting in May 2026, the position is offered at 20 hours per week for a one-year term, with the possibility of extension.

LEGION focuses on the digital transformation of archaeological find processing at the intersection of Heritage Science and Artificial Intelligence (AI). Funded by the OeAW's Heritage Science Austria 2.0 program, the project aims to develop an AI-supported system for the rapid and transparent automatic classification of ancient common ware from the Roman agglomeration of Carnuntum (Lower Austria/AUT), part of the UNESCO World Heritage site "Danube Limes."

LEGION is conducted in close interdisciplinary cooperation between the OeAI/OeAW and the Computer Vision Lab (CVL) at the Technical University of Vienna (TU Wien). The core team is supported by strategic partners, including the State Collections of Lower Austria (LSNÖ), the Center for Museum Collections Management (ZMSW) at the University for Continuing Education Krems (UWK), the Roman City of Carnuntum, and the Austrian Centre for Digital Humanities (ACDH).

Utilizing a dataset of approximately 70,000 existing 2D profile drawings, LEGION will implement cutting-edge Machine Learning (ML) methods and continuous expert feedback (Human-in-the-Loop/HITL). By the project's conclusion, it aims to provide a fundamental typochronology for ancient common ware in the Middle Danube region and present a low-threshold, open-source tool for rapid, transparent automatic identification and dating via eXplainable AI (XAI) for both legacy and newly created 2D drawings. Besides technological innovation, the project generates new insights into socioeconomic dynamics and settlement processes in Carnuntum by linking find data with spatial analyses. A further central focus is placed on responsible Research Data Management (RDM) and long-term archiving (LTA) according to FAIR (Findability, Accessibility, Interoperability, Reusability) and CARE (Collective Benefit, Authority to Control, Responsibility, Ethics) principles, ensuring the sustainable availability of results for the international research community.

Your Tasks

The Student Assistant will support our interdisciplinary team in operational and data-centric tasks regarding RDM and LTA:

- Support in the retro-digitization and management of existing archaeological artifact drawings.
- Support in curating and preparing the archaeological project database (Baserow) and enriching datasets using the ARCHE metadata schema, including the integration of controlled vocabularies and authority data (e.g., oeai.Thesaurus, Getty AAT, Wikidata).

- Assistance in the semantic modeling of the dataset based on an ontology (CIDOC CRM).
- Support in preparing the dataset for ML tasks and developing the typochronology.
- Collaboration on GIS-based mapping in QGIS for settlement archaeology and support in creating spatial analyses.
- Participation in file audits and assistance in mapping metadata to the ARCHE repository schema.

Your Profile

- Current enrollment (Master) in fields such as Classical Archaeology, Provincial Roman Archaeology, Digital Humanities, or related disciplines
- Interest in applying digital methods to Roman archaeology
- Basic knowledge of generative AI, storage and database systems, Geographic Information Systems, and coding is an advantage
- High degree of accuracy and diligence in handling digital datasets
- Very good English skills, good German skills

Our Offer

- Direct involvement in a highly innovative project, bridging Heritage Science and AI
- Gain advanced experience with state-of-the-art methods in AI
- Comprehensive training in sustainable RDM and LTA
- Opportunity to contribute to scientific publications and professional dissemination
- Collaboration within our dynamic team at OeAI/OeAW and CVL/TU Wien as well as a network of strategic partners
- Flex time arrangement
- Numerous voluntary social benefits
- A monthly gross salary according to the collective agreement of the Austrian Academy of Sciences (OeAW) of € 1380,49.

For content-related inquiries, please contact the PI at the OeAI, Dominik Hagmann: dominik.hagmann@oeaw.ac.at

APPLY NOW

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. Individuals from underrepresented groups are particularly encouraged to apply. The OeAW cooperates with NEBA and is a member of MyAbility in order to provide appropriate workplace structures, in particular for persons with disabilities.

Contact

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