

# Research Engineer in Complexity (DB, Web, SysAdmin) for Complex Systems and Quantitative History

Full time (40h)

Salary negotiable based on experience and qualifications



COMPLEXITY  
SCIENCE  
HUB  
VIENNA

The [Complexity Science Hub Vienna](#) is a young research institution dedicated to a deeper quantitative and predictive understanding of complex systems for the betterment of society. We provide an exciting, creative, bureaucracy-free environment for open-minded visionaries who want to make a change and are brave enough to step out of mainstream science. The research team which the appointed candidate would join deals with modeling and data analysis of processes involved in the evolution of complex human societies as well as factors causing state breakdown and collapse. The empirical arm of this project is the *Seshat Databank* that aggregates the knowledge of historians and archeologists about long-term evolution and dynamics of past societies. The candidate will also become involved in the work of other research groups.

## YOUR RESPONSIBILITIES

- design and maintain scientific databases, in particular the *Seshat database* (<http://seshatdatabank.info/>)
- adapt the existing version of Seshat (a wiki) to a graph database
- design and deploy a web interface to input data into the database
- design and build tools and protocols needed to represent new data types, and make them usable for researchers in charge of modelling and data analysis
- create the input and quality control tools needed to input and to check the data
- publish stable subsets of data used for each scientific publication (which promotes reproducibility of the results)
- manage the website, its traffic and ensure its availability; browser and website scripting

## YOUR PROFILE (IDEALLY)

- BSc or MSc in Computer Science, Engineering, or relevant field
- experience in working with large websites and their operation
- familiarity with revision control systems, especially GIT
- skills in web development, networks, database systems
- programming in JavaScript, Python (R and Matlab desirable, but not critical)
- experience in managing and working with large datasets/databases, big plus if it includes ontologies and graph-oriented databases
- You are self-motivated, inquisitive and like to collaborate with a diverse and international team of researchers
- You are curious about history, complex systems, and science in general

## WE OFFER

A position in a dynamic, creative, internationally oriented, appreciative and open working environment. The variety of projects at the Hub will allow you to engage in new and hot topics and to collaborate with world renowned scientists. The salary for this position depends on education, qualification and work experience.

## APPLICATION

To apply, please submit your CV, a motivation letter as well as any additional material that helps us understand that you are the right person for this position, to [office@csh.ac.at](mailto:office@csh.ac.at) until **November 15, 2020** (further applications will be screened until the role has been filled). We especially encourage female candidates to apply. The CSH Vienna processes your personal data in accordance with the law. (<https://www.csh.ac.at/data-protection/>).