



Can AI extract light interventions from papers?

Evaluating NLP and information extraction for research synthesis.

Tübingen / Munich / Remote · English · Master's thesis · Research internship · Erasmus+ research placement · Engineering project

The question

Research reports describe light interventions in inconsistent ways. Could AI help researchers locate and organise relevant information while keeping uncertainty and source evidence visible?

The project

Explore natural language processing and information extraction from scientific papers. The aim is to assess where automated assistance can support evidence synthesis and where human judgement remains necessary. Detailed extraction specifications and evaluation design will be developed within the project.

What you will do

- Review information-extraction approaches and reporting challenges in light-intervention research.
- Build a reproducible prototype for an agreed collection of accessible papers.
- Evaluate outputs against human assessment, analysing omissions, unsupported statements and traceability to sources.

Possible scope

A thesis or engineering project could combine prototype development and quantitative evaluation. A shorter placement could analyse a bounded error pattern or workflow component. Strong programming skills and interest in reliable scientific AI are useful.

Suitable backgrounds

AI / NLP · Computer science · Data science · Epidemiology · Health science

General expectations

You should be able to analyse data in R or Python, use Git and GitHub, and work reproducibly. Independent reading, careful documentation and increasing responsibility are expected. Previous sleep or circadian research experience is not generally required.

Funding

No salary or stipend from the research group unless explicitly stated. Master's theses are generally unpaid. Mention external funding or mobility programmes when applying.

Suggested backgrounds are not formal programme approval. Confirm requirements with your home institution.

How to apply

Send a short motivation, CV, relevant skills, preferred project, dates, format and location. Mention external funding. Contact Prof. Manuel Spitschan using the address below.

Munich: manuel.spitschan@tum.de

Tübingen: manuel.spitschan@tuebingen.mpg.de