

Junior Research Position at the Zero Hunger Lab

Institution: Tilburg University

Location: Tilburg, the Netherlands

Employment type: Junior researcher

Duration of employment agreement: 1 year fulltime with possibility to become a PhD

Applications sought: from around the world

Start date: September 01, 2022

Application deadline: July 15, 2022

The Zero Hunger Lab is looking for a junior researcher in a new project called 'Anticipatory Action' of the Ministry of Foreign Affairs. Anticipatory Action is defined by the United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA) as: *"Actions taken in anticipation of a crisis, either before the shock or at least before substantial humanitarian needs have manifested themselves, which are intended to mitigate the impact of the crisis or improve the response. Anticipatory action is a proactive intervention, which takes place upon issuance of a warning or activation of a trigger. Effective anticipatory action requires robust forecasting and triggers/parameters linked to pre-agreed financing, along with risk monitoring and analysis, and ground truthing capabilities."*^[1]

This position is fully funded for a period of 1 year, with no tuition fees to be paid.

Tilburg University is one of Europe's leading universities in the fields of business and economics. It ranks #28 worldwide in Business and Economics (Times Higher Education Ranking 2019) and #52 globally in research productivity in UT Dallas 2020. The School of Economics and Management has 7000 students (26% international) and 400 academic staff (50% international). The campus provides a green, academically centered environment with modern facilities and convenient local transportation. Tilburg's central position in the Benelux offers excellent regional and international access. Major airports nearby include Amsterdam (Netherlands), Brussels (Belgium) and Düsseldorf (Germany). English is the working language of the university.

The Zero Hunger Lab is a multidisciplinary environment where we aim to use Data Science in the broad sense to reduce hunger in the world; and by our research have impact. We work closely with the department of Econometrics and Operations Research at the School of Economics & Management but also with other departments on topics as Operations Management, Digital Sciences, Peace & Conflict and Ethics.

Subject

Anticipatory action has the potential to reduce the impact of imminent humanitarian crises. It improves preparedness (being proactive rather than reactive), reducing total suffering when a disaster strikes. Anticipatory humanitarian assistance will enable people to mitigate the impact of crisis on their livelihoods and gain experience in how to best deal with similar crises. Anticipatory action is also assumed to reduce costs, providing humanitarian organizations with means to better deal with the widening humanitarian funding gap. Furthermore, the required risk analysis, monitoring and forecasting can help organizations take informed decisions on (re-)focusing their programs toward fragile and crisis ridden contexts.

Setting up anticipatory action systems is complex. It requires involvement and alignment of the right stakeholders (e.g., humanitarian organizations, governments, etc.). For example, stakeholders need to agree upon the models that generate the forecasts, put in place pre-agreed finance, and determine the type of assistance to be funded within the lead time (the time till the shock hits or the humanitarian needs manifest themselves). Getting it right is not easy and requires strong political and technical support. Critically, anticipatory action should not be a substitute for investment and action to reduce vulnerability and strengthen

people's capacity to manage risks. It should not crowd out public investment in adaption, risk reduction and preparedness.

Data science in the broad sense (AI, Operations Research, classical data science, Econometrics) will play an important role in shaping systems for anticipatory action. The aim of this project is to analyze how data science techniques can help the development of anticipatory action systems and provide insight in the advantages of such systems, while acknowledging the larger system of stakeholders and existing initiatives in which these systems will be implemented.

Terms of employment

The junior researcher will be employed by Tilburg University, which is one of the best non-profit employers in the Netherlands and has an excellent policy concerning terms of employment. The appointment is intended to lead to further funding for the completion of a PhD dissertation.

During this year there are no teaching obligations but there might be requests from aid organizations to help them with data analysis. This is maximally 20% of the working time.

Our aim is to publish one or two papers on the subject in this year, that might give additional funding to finally complete a full PhD.

Junior researchers are employees of Tilburg University. The salary for the position amounts € 2,541 per month gross in the first year. You are entitled to a holiday allowance amounting to 8% and a year-end bonus of 8.3% of your gross yearly income.

All university employees are covered by the so-called civil servants pension fund (ABP). The university offers very good fringe benefits, such as an options model for terms and conditions of employment and reimbursement of moving expenses.

Employees recruited from abroad may be eligible for the 30% tax facility, which means that 30% of your salary will be paid as a tax-free reimbursement. The university will apply for such tax facility on their behalf.

Requirements

- 1) A master's degree in a field like operations research, econometrics, data science, industrial engineering, or another relevant field;
- 2) Fluency in written and oral English;
- 3) Motivated to make impact with your research;
- 4) Ability to work independently and in a team;
- 5) Relevant working experience is an advantage.

How to Apply

The vacancy can be found at: <https://tiu.nu/20442>. To apply for this position, please submit the following documents by July 31, 2022.

1. Statement of purpose (motivation letter)
2. Curriculum vitae
3. Copies of Bachelor & Master degrees
4. Copies of Bachelor & Master grade lists
5. Copy of ID
6. 2 letters of recommendation
7. A pdf copy of your master and/or bachelor thesis written in English or other research-oriented output. This work must be single- or first-authored. If you are currently working on your master thesis, feel free to submit your thesis draft.

8. Proof of English proficiency (IELTS, TOEFL, etc.). You can sometimes get an exemption: please use the downloadable form.
 9. GRE or GMAT score. You do not need to provide a GRE or GMAT test score if you have obtained a TiU university Bachelor's or Master's degree in a relevant field with good results.
- You only can apply online. Interviews are expected to take place in the second and third week of August 2022.

Additional information can be obtained from

dr. Thomas Breugem, (thomas.breugem@insead.edu) project leader and researcher

prof.dr.ir. Hein Fleuren (fleuren@tilburguniversity.edu); scientific director Zero Hunger Lab