Job - PhD position within the visuAAL Marie Skłodowska-Curie Innovative Training Network

PhD position

Details

Location	Vienna University of Technology (AUSTRIA)
Function types	PhD position
Scientific fields	Computer science
Hours	40.0 hours per week (in annual calculation)
Salary	See below
Education	Doctoral Programme in Computer Science
Job number	visuAAL ESR 11
Employer	Vienna University of Technology
Short link	https://cvl.tuwien.ac.at/

Job description

visuAAL is a four-year (2020-2024) Marie Skłodowska-Curie Actions Innovative Training Network, funded by the European Union, that aims at bridging the knowledge gap between users' requirements and the appropriate and secure use of video-based AAL technologies to deliver effective and supportive care to older adults managing their health and wellbeing.

visuAAL will seek to increase awareness and understanding of the context-specific ethical, legal, privacy and societal issues necessary to implement visual system across hospital, home and community settings, in a manner that protects and reassures users; outputs will stimulate the development of a new research perspective for constructively addressing privacy-aware video-based working solutions for assisted living.

visuAAL will provide a transdisciplinary and cross-sectoral combination of training, non-academic placements, courses and workshops on scientific and complementary skills to 15 high achieving Early Stage Researchers (ESRs). These newly hired ESRs will contribute through their individual research projects to fulfil visuAAL's aims.

visuAAL brings together 5 universities:
- Chair of Communication Science, Human-Computer Interaction Center, RWTH Aachen University, Germany
- The Swedish Law and Informatics Research Institute (IRI), Stockholm University, Sweden
- The Trinity Centre for Practice and Healthcare Innovation, School of Nursing and Midwifery, Trinity College Dublin, Ireland
- Computer Vision Lab, TU Wien, Austria
- Department of Computing Technology, Universidad de Alicante, Spain (Project Coordinator)

This Consortium is complemented by 14 partner organisations from Austria, Germany, Ireland, Italy, Portugal, Spain, Sweden, and United Kingdom; that will contribute to the research and training activities.

For more information about visuAAL, see https://www.visuaal-itn.eu/.

In the framework of visuAAL, Vienna University of Technology is recruiting a PhD researcher for a period of three years.

Project description

Project title: Algorithmic fairness in AI for active assisted living
Objectives: Algorithmic decision making became enmeshed into daily life. In active assisted living data is analysed and interpreted with the intention to support people in various ways: recognizing behaviour, events, emotions, needs; creating ambient intelligence; predicting activities and proposing treatment strategies. Machine learning as prerequisite of intelligence is applied. Taking into account recent success, it can be claimed, that not only a set of specific algorithms but also a lot of example data is needed to run the learning methods. And usually those building the algorithms are not trained in law or the social sciences, while experts in discrimination law do not know how to audit modern machine learning algorithms. Further complicating matters is that even experts in computer science and mathematics often struggle with interpreting the output of many modern machine learning algorithms. Unsurprisingly assessing and guaranteeing fairness and transparency in machine learning is a wide open research and that is the topic of the PhD proposal
Expected Results: The outcome leads to better understanding of algorithmic fairness and transparency. Strategies and paradigms for fairer algorithms are proposed. Policies and legal frameworks in addition to (machine) learning strategies are investigated to ensure an equitable outcome of applying machine learning for AAL
Supervisory Committee: - Main Supervisor: Prof M. Kampel (TU Wien)   - Second Supervisor: Prof P. Wahlgren (Stockholm University)   - Co-Supervisor: Prof R. Sablatnig (TU Wien)   - Advisor: Prof R. Bonsack (Universidade Católica Portuguesa) Dr. R. Planinc (Cogvis GMBH)
Planned secondment(s):   **Secondment 1**: University of Alicante (Supervisor F. Florez) M18-M20: Training and research on learning strategies   **Secondment 2**: Stockholm University (Supervisor P. Wahlgren), M25-M27: Investigating legal frameworks and policies
Enrolment in Doctoral degree(s): Doctoral Programme in Computer Science, Vienna University of Technology

Requirements

- Applicants must hold a relevant Master's degree (or equivalent) in Computer Science, Electronic and Electrical Engineering, or a related area
- Applicants must not have been awarded a PhD degree
- At the time of recruitment, applicants must have less than four (full time equivalent) years of experience within a research career (measured from the date when the

applicant obtained the first degree entitling him/her to embark on a doctorate, even if a doctorate was never started or envisaged)
- Applicants must not have resided or carried out their main activity (work, studies, etc.) in the country of the recruiting institution for more than 12 months in the 3 years immediately before the recruitment date
- Proficiency in written and spoken English
- Be highly motivated;
- Creativity and high level of independency;
- It is the policy of the visuAAL project to promote equal opportunities between men and women and stimulate gender balance.
- Additional requirements: None

Conditions of employment

We offer a 3 year full-time PhD contract. The first year will be a probation period, after a positive assessment the position will be extended with another 2 years.

The full-time gross monthly salary amounts to € 2.929,00 (plus mobility bonus and bonus according to family charges), with 2 extra payments per year.

The salary and terms of employment for this position will correspond to the provisions set out in the Statute of Workers' Rights, university collective agreement for employees in Austria and in the provisions of the Marie Skłodowska-Curie Actions.

We offer a dynamic and challenging job in an internationally-oriented organisation where young people receive an advanced education and scholars conduct exciting research.

You will participate in the research training sessions in the framework of the visuAAL Marie Skłodowska Curie ITN project.

Contract type: Temporary, we offer a 3 year full-time employment contract.

Organisation

Vienna University of Technology (TU Vienna) is located in the heart of Europe and for 200 years, TU Vienna has been a place of research, teaching, and learning in the service of progress. TU Vienna is among the most successful technical universities in Europe and is Austria's largest scientific-technical research and educational institution. The Computer Vision Lab (CVL) was recently formed from the Pattern Recognition and Image Processing Group (PRIP). It is continuing to be an active player in various national and international activities ranging from participation in peer-reviewed conferences, project funding and reviewing, and scientific committees to international project coordination. It provides expertise in machine learning, pattern recognition, feature extraction, algorithmic research, and software development. ESRs will live in one of the most liveable cities of the world in the heart of Vienna with full access to the library and any other premises of our university.

Department

Institute of Visual Computing & Human-Centered Technology, Computer Vision Lab

How to apply?

Submit your application to https://www.visuaal-itn.eu/esr-vacancies. Please, ensure that you select vacancy number ESR11.

The following documents must be submitted with your application:
  (a) Written documentation concerning prior education, including a certified copy of your Master certificate and list of grades (with certified translation for languages other than English or Spanish);
  (b) A personal letter of motivation, indicating why you wish to conduct this research project offered by Vienna University of Technology, and why you expect that you will be able to complete the research and training programme successfully;
  (c) Detailed curriculum vitae, including – if applicable – relevant publications;
  (d) Two references from academic referees; (who will be contacted by the Consortium using standardised forms),
  (e) The applicant should have a minimum level of proficiency in English language, which could be demonstrated by providing an English language certificate and that will be confirmed in a later interview, if needed.
  (f) Draft project proposal, including timeline (max length. 3000 words)
  (g) A substantial piece of writing in English, such as a (draft) master thesis or research paper.

Selection procedure

What?	When?
Deadline for submission applications	30 November 2020, 23:59 CET
Candidates pre-selected for interviews will be informed	7 December 2020
Selection interviews (candidates may be asked to give a short presentation about the topic of the project)	17, 18, 21, 22 December 2020 (online)
Successful candidates will be informed	22-23 December 2020
Acceptance by successful candidates	8 January 2021
Start of employment	February-March 2021

Selection criteria

Criteria	Rate
Relevant academic background (including the quality of the substantial piece of writing)	0-30
Motivation statement	0-10
Relevant publications/work experience	0-15
Draft project proposal, including timeline	0-30
Mobility (during Bachelor and/or Master)	0-5
Evaluation by referees	0-10

Information

For questions related to this project proposal, please contact martin.kampel@tuwien.ac.at
For all other questions, please use the following email address, clearly indicating the visuAAL vacancy number ESR11: info@visuaal-itn.eu