Universität der Bundeswehr München

Research Assistant / Doctoral candidate (m/f/d)
at the Institute of Flight Systems at the Chair of Aeronautical Engineering
of the Faculty of Aerospace Engineering
on the topic

"Training of Jet Pilots in VR Simulators"

(pay group 13 TVöD)

at the earliest possible date on a full-time or part-time basis for a limited period of up to 5 years.

The Chair of Aeronautical Engineering at the Department of Aerospace Engineering works in the field of automation of manned and unmanned aircraft. System and performance models of combat aircraft and their armament are developed and embedded in simulations for applications in education and training as well as operations and mission planning.

In current projects we are investigating

- the determination of technical limits of commercially available simulation environments,
- the use of computer-generated forces (CGF) in training simulators,
- the assessment of manned and unmanned aerial vehicle alliances

Your tasks in the research projects:

- Research and implementation of CGF behaviour control using modern AI technologies
- Further development of our VR simulation environment and connection to external simulation software
- Development of suitable validation & verification (V&V) processes

What are the qualification requirements:

- An above-average academic degree in
  - Computer science or engineering with a focus on AI, machine learning or reinforcement learning,
  - or another comparable engineering and mathematical-scientific degree programme.
- Sound knowledge of the programming language C++ and Python
- Knowledge of artificial intelligence and machine learning topics (e.g. TensorFlow, Keras, NumPy, pandas)
- Citizenship of a NATO nation and good knowledge of English

What else do we want?

- interest in virtual simulations/gaming engines and VR simulations
- basic knowledge in the field of flight simulation
- that you enjoy independent, scientific work and the ability to share your own ideas with the team of young colleagues

We offer:

- an active promotion of your scientific development and the opportunity to do a doctorate in an optimal research and supervisory environment. Outstanding graduates of relevant degree programmes at universities of applied sciences are strongly encouraged to apply.
- a pleasant working atmosphere in an internationally orientated, dynamic team
- a state-of-the-art IT equipment - flexible working hours
- excellent networking opportunities
- a campus university with a very good infrastructure, in-house crèche and kindergarten (parents' initiative), a family service centre with advice and support for university members on how to better combine family, care and work, as well as excellent sports facilities
- opportunities for further training and certification in higher education didactics
- classification in pay group 13 takes place in accordance with § 12 TVöD with regard to the actual activities to be carried out and the fulfilment of personal and collective agreement requirements.
- mobile working / offer of teleworking possible by arrangement.

Employment can also be part-time if desired. The University of the Bundeswehr Munich aims to increase the proportion of female scientists and employees; applications from women are expressly welcomed. Persons with disabilities will be given special consideration if equally qualified.

Have we raised your interest??

Please send your complete application (cover letter, CV, references, certificates) as soon as possible by **March 8th 2024** at the latest to:

Univ.-Prof. Dr.-Ing. Peter Stütz
Professur für Luftfahrttechnik (LRT 13)
Universität der Bundeswehr München
85577 Neubiberg
or via email to peter.stuetz@unibw.de

By submitting your application, you consent to your personal data being stored, processed and forwarded to the departments involved in the application process for the purposes of the application. You can find more information on data protection under the following link: Privacy Policy.

We are looking forward to your application!