

Position as Student Assistant (HiWi) for applying artificial intelligence to assist in landing aircraft at airports (Spoken Language: English or German)

We are looking for students who assist us with research in the areas of wake vortex detection, in cooperation with Deutsches Zentrum für Luft- und Raumfahrt.

Background

Wake turbulence are pairs of turbulence generated by aircraft while taking off (Figure 1, left). Flying into wake turbulence can destabilize an aircraft during landing and cause go-around. Thus, minimum distance between landing aircraft is prescribed (Figure 1, right). To make most use of airports' capacity and ensure environmental sustainability, we will utilize deep neural network to detect wake turbulence.



Figure 1: Visualization of the wake turbulence of the DLR research aircraft ATTAS (left); aircraft on final approach maintain a minimum distance from each other to avoid wake turbulence incursions (right).

What prerequisites do you need?

- Solid programming skills (e.g. Python).
- Strong foundation in machine learning, deep learning or artificial intelligence.
- Experience in LiDAR data is a plus.

What do we offer for you?

- A contract with 20-80h per month (the salary depends on the university degree). The contract can last between 2 and 6 months.
- Flexible working hours, also working at home possible.
- A variety of tasks so that you can learn a lot. Also state-of-the-art research can be performed and will be published together with the student.

Please send your requests with a transcript
of records and a short CV to:

Dr. Michael Färber
Michael.farber@kit.edu