

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

YES.

We'll show you how at Fraunhofer IIS.

For the »**Moving Pictures Technology**« department in **Erlangen**, the Fraunhofer Institute for Integrated Circuits IIS is currently seeking an / a

Intern / Student Assistant

for the Development of Synthetic Light-Field Datasets

Capturing a scene with a camera array instead of a single camera enables a wide range of possibilities during post-production as not only a single intensity image is acquired but a so-called light-field is recorded. In recent years, deep learning techniques have developed to be popular and effective tools for many tasks in the field of image and video processing. Unfortunately, annotating real-world data sets with pixel-level labels for deep learning applications has been extremely costly due to the amount of human effort required. Therefore, synthetic data is actively generated and used for the training of neural networks.

Your responsibilities

In general, your task would be to implement a pipeline to render light-field data with ground truth depth maps from modern computer games. Training and evaluating learning-based Structure from Motion (SfM) methods require many images with ground truth camera poses and depth maps. Therefore, you will develop tools that can generate an unlimited number of high-quality photorealistic images with ground truth depth maps and camera poses from games, such as Grand Theft Auto V (GTA5). This requires sufficient knowledge of computer graphics and advanced programming skills.

For more information about our light-field research, please refer to <https://www.iis.fraunhofer.de/en/ff/amm/for/forschbewegtbildtechn/lichtfeld.html>

Your profile: You ...

- are currently studying electronics engineering, computer science, information and communication technologies or a related field
- have experience in programming languages such as Python, MATLAB or C++
- have experience with 3D software such as Blender
- are available from now on (as a student assistant: 10-12 hours a week or as an intern: for a period of at least four months)

What you can expect from us

- An **open and cooperative** working environment
- Many opportunities to gain **practical experience and attend seminars**
- An interesting **application-oriented** field of research with **innovative** projects and a **state-of-the-art** laboratory environment
- Extensive **professional support** from **scientific mentors**
- **Flexible** hours that allow you to **balance** your studies and on-the-job experience
- Sufficient opportunity to **develop your interests and skills**

If you have any questions about this opening, please contact M. Shahzeb Khan Gul: Muhammad.gul@iis.fraunhofer.de or Christian Schinabeck: Christian.schinabeck@iis.fraunhofer.de

Interested?

Please apply for this position using the following link: <https://recruiting.fraunhofer.de/Vacancies/49876/Description/2>
Applications are possible **in German and English**. Please include a cover letter, your CV and your latest transcripts of records (as PDF) and quote ID number **49876** Address your application to Nina Wörlein.

Please let us know how you learned about this job opportunity.
Additional information is available on our website: www.iis.fraunhofer.de/en