

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

**YES.**

We'll show you how at Fraunhofer IIS.

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## Software Developer -

### 3D Scene & Object Reconstruction using Machine Learning

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The Fraunhofer IIS »**Audio and Media Technologies**« division has been making its mark on media digitalization for over 30 years, developing pioneering standards such as MP3 and AAC. Motivated by this success, we aim to address new challenges in 3D reconstruction for media and communication applications.

#### What you will do

**You aim to bring novel algorithms into efficient implementations?**

**Then join our team and help us making digital photorealistic 3D copies of favorite objects or scenes accessible to everybody.**

You will work in a cooperative team of researchers who are passionate about the challenge of easily creating 3D models with much better quality than today.

- That way, you open up new application possibilities in media creation and e-commerce, or generally in the future Metaverse.
- Starting from novel algorithms that we design to achieve our goals, you will define a software architecture that allows for fast processing, future extension and maintenance.
- This includes both the core libraries containing the 3D reconstruction algorithms as well as web-based user front ends, and early demonstrators.

#### What you bring to the table

- A scientific degree (Bachelor, Master or equivalent) in Electronics, Computer Science, Natural Science, Engineering Science, Media Technologies or a related subject
- Experience in a machine learning framework, ideally PyTorch
- Understanding of the foundations in multi-view stereo or neural fields
- Know-how in optimizing algorithms, including efficient implementation in C++
- Optional: Experience in GPU programming such as CUDA, OpenCL, OpenGL or WebGL

#### What you can expect

Fraunhofer is not only the largest organization for applied research in Europe, we are also a top-rated employer. [But why?](#)

- Top infrastructure at your workplace: With our state-of-the-art technologies, we develop solutions to meet the challenges of the present and future.
- We value personal contact: Through our structured onboarding process, you easily become familiar with our institute and can extend your network successfully.
- We take your needs seriously: We support your work-life balance by offering flexible working hours and hybrid work.
- Your goals and interests are important to us: We offer ongoing professional and personal seminars, coaching as well as language courses.

The position is initially limited to 2 years with the aim to extend it subsequently. The weekly working time is 39 hours. This vacancy is also available on a part-time basis. We value and promote the diversity of our employees' skills and therefore welcome all applications - regardless of age, gender, nationality, ethnic and social origin, religion, ideology, disability, sexual orientation and identity. Severely disabled persons are given preference in the event of equal suitability. Appointment, remuneration and social security benefits based on the public-sector collective wage agreement (TVöD). Additionally Fraunhofer may grant performance-based variable remuneration components.

With its focus on developing key technologies that are vital for the future and enabling the commercial utilization of this work by business and industry, Fraunhofer plays a central role in the innovation process. As a pioneer and catalyst for groundbreaking developments and scientific excellence, Fraunhofer helps shape society now and in the future.

**Still hesitating? Don't worry. We are an interdisciplinary team, looking to support career-oriented talents. So, join the home of MP3 and send us your application (in English or German). Apply [online](#) now (Cover letter, CV and references). We look forward to getting to know you!**

Claudia Kestler-Böhm

**Important:** Please do not forget to click on the »Apply«-button after clicking the »Save«-button, otherwise your application will not reach us.

Fraunhofer Institute for Integrated Circuits IIS

[www.iis.fraunhofer.de](http://www.iis.fraunhofer.de)

Requisition Number: 53864

Application Deadline: -

Location: Erlangen

