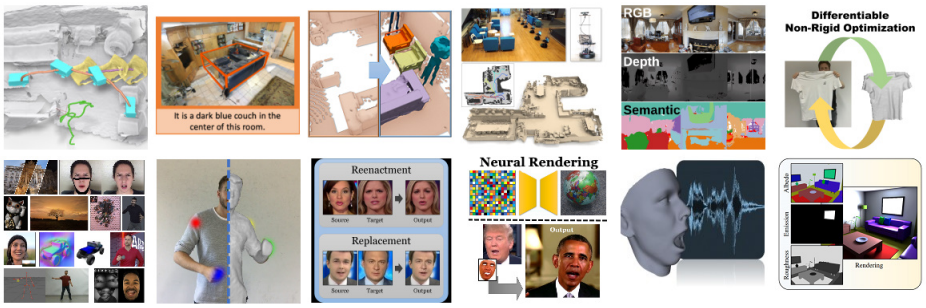
Visual Computing & Artificial Intelligence
Prof. Matthias Nießner

Master Research Fellowship – Visual Computing & AI (I28 Prof. Nießner)



The Visual Computing & AI Chair is excited to launch a new fellowship program for outstanding master students.

We believe an early start into research is central for a successful Master thesis and for a prospective academic research career (PhD). While the Master program provides a vast array of lectures and coursework, research work is often limited.

The aim of this stipend is to provide our fellows with the ideal setting to focus their efforts towards independent research, before and during their Master's thesis (and/or Guided Research, IDP). The fellows will be working on their own research projects or collaborating with one of our PhD students with the goal towards of an academic publication.

To this end, Master fellows are active participants of the Visual Computing & AI Lab (I28). You will be designated office space in our student lab and computing resources; you will work alongside other fellows and Master students, participate in our seminars as well as social activities.

Your time is valuable, and it is better spent on research, rather than

working to support your studies. We therefore offer our fellows a monthly stipend to facilitate that.

Overview

Duration	Stipend
Up to 12 months, on a renewable 4-month basis.	750,- EUR / month.

Deadlines

March 30th (decisions by mid April)
August (decisions by end of August) - not open yet but will be announced soon

Application

Who can apply?

- You are an enrolled TUM Master student
- The fellowship targets 2nd year students (soft requirement)
- You are interested in conducting research in our chair's domains of interest (see publications or proposed topics)
- You have successfully participated in relevant courses, including:
  - At least one of our basic lectures:
    - Introduction to Deep Learning (I2DL) (IN2346) 4 SWS, 6 ECTS
    - 3D Scanning & Motion Capture (IN2354) 4 SWS, 6 ECTS
  - **And** at least one of our Advanced/Practical courses (mandatory):
    - Advanced Deep Learning for Computer Vision (ADL4CV) 5 SWS (2V+3P), 8 ECTS
    - 3D Scanning & Spatial Learning Practical

(IN2106, IN4263), 6SWS, 10 ECTS
        - Deep Learning in Visual Computing Practical (DL-VC) (IN2106, IN4282), 6 WS, 10 ECTS
    - Any related courses and practicals on 3D Vision and Machine Learning are nice to have. For example:
        - Computer Vision I: Variational Methods (IN2246)
        - Computer Vision II: Multiple View Geometry (IN2228)
        - Computer Vision III: Detection, Segmentation, and Tracking (IN2375)
        - Numerical Algorithms in Computer Vision and Machine Learning (IN2384)
        - Machine Learning (IN2064)
        - Advanced Deep Learning for Robotics (IN2349)
        - Image Synthesis (IN2015)
        - Convex Optimization for Computer Vision (IN2330)

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Application procedure

The application is completed by filling out the application form. Note that only complete applications will be considered.

Your application must include:

- CV (English)
- Grade Transcripts (both from Bachelor and the ongoing Master; English)
- Research Statement (Max. one page, in English. Tips: Do not recite your CV. What topics are you interested in? What are your research plans? Do you have a concrete project idea? Which topics will your work

involve and why? What are your skills that are most relevant?)

Contact

For further questions and administrative matters, please contact Ms. Assia Franzmann: assia.franzmann (at) tum.de

FAQ

I am a Bachelor's student. Can I still apply?

Unfortunately, no. If you, however, do fill the other requirements – consider contacting the chair directly for collaboration opportunities. We are always happy when exceptionally motivated students reach out to us.

I am a TUM Master student from a different faculty. Can I still apply?

We are interested in talented and motivated students. If you have a strong application and meet the lecture requirements, your application will be considered.

What are my chances to be accepted?

Currently, we plan to accept 10 fellows each year. Fellows are chosen based on merit: good grades in the relevant courses is a pre-requisite; however, we also often already know applicants from their participation in our practical courses.

How can I make my application stand out?

Make a good impression during the practical course. Have good grades and a wide knowledge of computer vision/graphics/ML (lectures from other chairs are helpful too); Previous research experience is beneficial; Show us your past projects.

What does 'a renewable basis' mean?

After 4 months, the progress on your research and your engagement are evaluated. The fellowship can be renewed up to 2 times in the presence of good research prospects.

Is this fellowship basically a paid IDP?

No, you are free to do your IDP and/or Guided Research elsewhere while receiving the fellowship. The focus is on conducting research activity within our chair.

Am I allowed to work during the fellowship?

Working alongside the fellowship is not forbidden, but may take focus and time away from your research, hence we highly recommend against it. The stipend is given to you so that you don't need to. We do, however, encourage fellows to engage in working as HiWi's in our chair. These are mostly Tutor positions for our lectures. HiWi contracts and the fellowship are independent of one another.

Is the fellowship tied to a new project?

Not necessarily, the fellowship can support you for an existing project you are already working on, such as a Praktikum, Guided Research, IDP or thesis.

What happens if I exmatriculate?