

1 Postdoc and 1 PhD student 3-year Positions in Deep neural network modelling / Developmental Visual Neuroscience

The lab of **Prof. Dr. Gemma Roig** has two openings, one for a postdoc researcher and one for a PhD student, working at the intersection of developmental visual neuroscience and deep neural network modelling at **Goethe University Frankfurt, Germany**.

The position is supported by a BMBF (Federal Ministry for Education and Science) research grant ("GROWUPAI - AI that grows up like the human brain for improved efficiency and robustness") and is funded for 3 years, starting in December 2025 (E13 100%). This is a team effort with the Neurocognitive and Experimental Psychology

Lab led by Radoslaw Cichy (Berlin, https://www.ewi-psy.fu-berlin.de/en/psychologie/arbeitsbereiche/neural_dyn_of_vis_cog/index.html).

The goals of the project are 1) to improve vision AI models in computational efficiency and adversarial robustness by using developmental neuroscientific data, and 2) to in turn use those improved models to better predict and explain human brain activity. The team with Radoslaw Cichy will focus on the methodological and theoretical aspects of human developmental neuroscience whereas Gemma Roig's team will focus on the modelling aspect mainly using Deep Learning. Constant and deep interactions between the teams in Frankfurt and Berlin are integral to the project and are strongly supported by the PIs.

This is a great opportunity for candidates that are interested in bridging developmental visual neuroscience with deep learning to enhance models' capabilities and understand human visual development. Candidates should ideally have prior experience with developing, training and testing multimodal deep neural networks, very strong programming skills (python, pytorch and relevant frameworks), and prior experience or a strong interest in cognitive neuroscience. The working language in the lab is English, German is not necessary.

The lab is formed by a diverse and collaborative team in the department of Computer Science at Goethe University Frankfurt, Germany. They are both part of a vibrant AI and cognitive science/neuroscience community. They have access to state-of-the-art research facilities, including dedicated GPU computing resources. Further details can be found at <https://www.cvai.cs.uni-frankfurt.de/>.

Goethe University Frankfurt is committed to a policy of providing equal employment opportunities for both men and women alike, and therefore encourage particularly women to apply for the position/s offered. Individuals with severe disability will be prioritized in case of equal aptitude and ability.

If you are interested in joining our project, please send a CV, a statement of research interests, one (PhD position) or two (PostDoc position) publications, and the names and contact details of at least two academic references (all in one pdf document) until **31.10.2025** to roignogu@em.uni-frankfurt.de stating [GROWUPAI] in the subject.