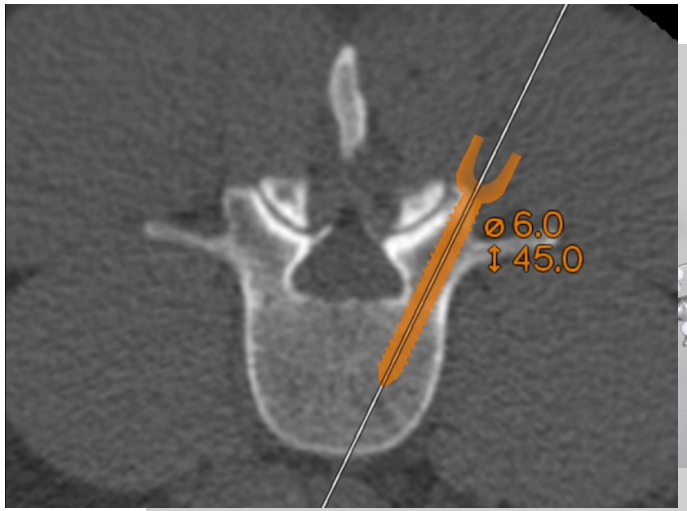
Navigation in Surgery (MA, BA or FP)

Surgical Navigation systems (e.g. brainlab, Medtronic, Stryker…) are now routinely used during surgery. They allow to precisely locate tools relative to the patient anatomy (e.g., a bone to be fixated) and guide the surgeon during the procedure.

In this project, we investigate new approaches to such navigation systems making use of the advancements in deep learning and pattern recognition.



What

- Project adaptable to either Bachelor's thesis, Master's thesis or project work (e.g., Forschungspraktikum)

Required Skills

- A solid understanding of geometry is required and a will to learn new concepts self supervised

Targeted Study Programs

- Medical Engineering, Computer Science and similar
- Ideally you have had courses like Computer Vision, Computer Graphics, Deep Learning but anything can be learnt

How to apply

- Please write an email to Maxi.Rohleder@fau.de with a CV, grades overview and a brief introduction of yourself

Images: https://www.brainlab.com/de/chirurgie-produkte/uebersicht-ueber-wirbelsaeulen-trauma-produkte/navigationssoftware-fuer-wirbelsaeulenchirurgie/