

Postdoc Position: Mapping a Changing World using Diverse Sensors



3D maps are essential sources of information for promising technologies such as Augmented Reality-based assistants and autonomous robots such as self-driving cars and drones. Building 3D maps from sensors such as cameras, lidar, depth sensors, etc. is a well-studied problem for static scenes. However, our world is dynamic and changes over time, e.g., seasons have a significant impact on the geometry and appearance of outdoor scenes, while humans constantly alter their environments by interacting with them. Modeling such changes in 3D maps is a much less studied and far-from-being-solved problem.

The goal of this postdoc project is to develop and implement strategies for mapping dynamic scenes from a wide range of sensors. The developed strategies will be evaluated on standard benchmark datasets and in real-world applications. The postdoc will closely work with PhD students in the group working on this problem and is expected to supervise Master theses.

The position is at the [Czech Institute of Informatics, Robotics and Cybernetics](#) at the Czech Technical University in Prague, Czech Republic. The position is fully funded and you will be working with Torsten Sattler and his team. The postdoc is expected to either be already located in Prague or to move to Prague for the studies.

Requirements:

- Recent PhD in Computer Science, Informatics, etc.
- Strong background in either (3D) computer vision (with knowledge of Structure-from-Motion, local feature matching, camera geometry estimation) or machine learning for (3D) computer vision.
- At least one first-author publication in one of the top computer vision (CVPR, ECCV, ICCV) or machine learning (NeurIPS, ICLR, ICML) conferences or top computer vision journals (TPAMI, IJCV).
- Programming experience in Python and / or C++

Application process:

Please contact Torsten Sattler (torsten.sattler@cvut.cz) and provide the following:

- Up-to-date CV
- Names and emails of two to three references