ML-based development of a monitoring software in cooperation with IRPD

**Initial situation**
The Laser Powder Bed Fusion (PBF-LB) additive manufacturing process enables the fabrication of metal parts with complex geometries and elaborate internal features. However, its tremendous potential for widespread application in industry is hampered by the lack of consistent quality.

**Aim**
Based on high-resolution images of each deposited powder layer during the PBF-LB process, the aim is to develop a software tool that automatically identifies, mitigates and if possible predicts the defects of the powder bed. A challenge is the diversity of the images caused among others by illumination and the history of the process. During the project experienced software and process engineers from the company IRPD will support you.

**Requirements**
I am looking for a motivated student who is fluent in English and has a background in image recognition and artificial intelligence.

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