Software development for 3D-CAD generation of gears
Interdisciplinary Project

Initial situation:
The Institute of Machine Elements develops a gear geometry program, which calculates the point clouds of gear teeth based on the manufacturing process. For the further processing of the geometry, e.g. in FEM-calculations or Computer Aided Design (CAD), a 3D Model of the whole gear is necessary.

Targets:
Target of the project is to develop a MATLAB program which converts the Point Cloud of a single gear tooth to a 3D-model. The program structure should be efficient and easy to maintain. The modularity and possibility of further development should be enabled with the concept of Object-Orientated programming.

Requirements:
- German and English possible
- Programming skills in MATLAB
- Initiative and independent working behaviour
- Home-Office possible