



## Masterthesis or Internship: Predicting wear in machinery processes

Manufacturing is still a very analog and manual industry. However, there are more and more tools and systems that are ready for the digital transformation and the trend towards autonomous systems is becoming a reality. At SCHUNK, we work on this problem and are looking for systems that adapt to changes in the manufacturing process.

Over the past few months, we collected (and are still collecting) quite some interesting datasets about different milling and drilling processes. The goal of this work will be to develop the background and algorithms for autonomous milling solutions. Based on the collected and labelled dataset, the goal is to determine the best control algorithms that will first detect problems in the processes (like chattering and instability) and then to control the machine in a way that will stop the disturbance or in the best case to predict and avoid problems in the milling and drilling process.

### Your task:

- Discover state-of-the-art in process monitoring and data analytics for time series
- Develop concept for data analytics of milling and drilling data
- Implement and test the algorithms on our AI edge platform

### Your profile:

- Study computer science or a related topics suitable for ai and data science
- Basic skills in data science, ai and software development
- Good programming skills in python, ideally with experience in scikit, pytorch, or alike
- Motivated and curious character
- Structured and independent approach to work
- Teamspirit

Auf Ihre Onlinebewerbung über unsere Homepage freut sich Frau Vanessa Feuerherdt, die Ihnen für erste Informationen unter Tel. 07133-103-2419 zur Verfügung steht.

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