Are you interested in working together with a motivated, multidisciplinary start-up team to develop an AI-based analysis system for heavy machinery on construction sites? Then join our team!

**Our Vision**
We guide construction sites and mining pits into the age of digitization. We gather all kinds of data within construction sites or mining pits in real-time, e.g. status data from construction machinery. From this vast amount of sensor data our AI software derives high-level information by using image recognition and deep learning etc. This information assists the construction manager within his daily routines by improving the efficiency and saving costs, time and effort.

**Topic for an Interdisciplinary Project (IDP)**
- Developing and implementing a hardware & software prototype for a heavy machine-tracking unit.

**Your profile**
**Hard skills (whole Team)**
- Background in computer science, electrical engineering, and hands-on programming
- Experience in embedded software development in C/C++ (e.g. Arduino, STM32, Raspberry Pi, etc.)
- Knowledge of common hardware interfaces (I2C, SPI, GPIO, UART)
- Experience in digital and analog hardware design and schematics capturing
- Experience with at least one common capturing & PCB layouting tool (Eagle, Altium, OrCAD, DipTrace, etc.)
- Nice to haves: MQTT, Docker, Linux, Python, GPS trackers, RTK, Kalman filters

**Soft skills**
- High motivation and willingness to learn
- Willingness to create products for the customer (no consulting)
- You can work in part-time
- The IDP can be done as a single person or as a team project (preferred)

**What we can offer**
- A place where you can build products of the future
- Get in touch with high level industry partners and VCs
- Get deep insights through working within a high-tech start-up
- Generate knowledge on how to build your own start-up

If you feel addressed, send us your application and CV to: 
[team@abaut.de](mailto:team@abaut.de)
and visit our homepage: [www.abaut.de](http://www.abaut.de)

**Additional Information**
The project will be supervised by the TUM Entrepreneurship Research Institute of Prof. Breugst. You will take two lectures like: “Entrepreneurship” and “Technology and Innovation Management: Introduction”