

# Reliable and Highly Scalable Algorithms & Data Processing for IoT-based Ambient Assisted Living

Type: Interdisciplinary Project (IDP)

Location: Munich / Remote

## **Our Mission**

At Veli, we address two of the major challenges of our generation: the climate crisis and the demographic change. Our mission is to **enable everyone to live independently, safely, and sustainably in their own homes into old age** by making Veli the central ecosystem for health and sustainability in everyone's households.

We have entered the market with our novel IoT-based ambient assisted living solution that uses the data which is available in every household: the power and water consumption. Our AI analyzes the energy consumption data of elderly people and notifies caregivers in case of anomalies or emergencies. In this way, the home itself becomes a smart guardian for the residents and assistance is initiated when it is really needed.

## **Your Profile**

- You are an experienced Python developer and have already programmed in a team using git and CI.
- You have experience with cloud platforms such as Microsoft Azure.
- You are a curious problem solver with strong analytical skills and a creative mindset.
- You have an independent, structured, and proactive approach to work.
- Strong communication skills in English or German.

#### Our Offer

- A highly motivated and supportive environment where you can grow and learn by taking ownership
- Work side-by-side with our founders and core team
- Creative freedom and many opportunities to shape our company, product, and tech stack
- Flexible working hours and possibility to work in Kassel, Munich or remotely
- Academic supervision by the TUM Entrepreneurship Research Institute (ERI)

# The Topic

Our Al analyzes millions of data points per day in our cloud, continuously increasing with our growing customer base. We are constantly improving our backend and algorithms to strengthen our position as frontrunner in smart energy analytics for a safe and sustainable life at home.

We have a wide range of topics across the entire range of our cloud-based IoT solution. Together we can shape your IDP based on your skills and interests based on **our available subtopics**:

## Algorithms & AI

\_AI / ML

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Design and develop algorithms to detect anomalies and activities of daily living in energy data.

#### Product & App

Python

Django

Develop new product features with a strong customer focus for our web-app and the interfaces to emergency call centers.

#### Data & Testing

InfluxDB

MLOps

Improve our data handling and automatic labeling and testing pipeline of our Al.

## Cloud & Backend

Azure

Kubernetes

Improve our overall cloud architecture and how our components communicate with each other.

## Sensors & IoT

Azure

Embedded

You like working with the hardware in mind? Bring our IoT-system with new sensors, gateways, and edge-computing to the next level.

# **Interested? Get In Touch!**

Just write us a short e-mail with your CV and the focus you prefer.



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