



# Jonas Matthias Teupel

## WORK EXPERIENCE

---

### Student assistant for IoT related tasks

**E.ON Energy Research Center, EBC, RWTH Aachen University** [ 01/10/2020 – Current ]

City: Aachen

Country: Germany

- Literature research to define requirements (for e.g. computing power, services and other challenges) for an IoT platform. This platform is supposed to digitize a planned residential quarter in the future and thus enable the real-time optimization of the energy system. This is being done in collaboration with an industry partner
- Establishment of an IoT infrastructure for a heat pump (hardware in the loop HiL) test bench based on FIWARE
- Creation of digital twins for components of the hiL test bench as building energy system, heat pump and the test bench infrastructure
- Implementation of evaluation applications for the test bench as real-time applications into the IoT network

### Technical internship (R&D)

**Siemens Energy B.V.** [ 01/04/2021 – 01/08/2021 ]

City: Leiden

Country: Netherlands

- Research on thermal energy storage systems, especially on molten salts and hot rock systems
- Technical analysis of different storage systems to define factory planning metrics
- Economic evaluation of the storage systems, including electricity market analysis and LCOE calculations

### Product owner/developer

**Circonomit GmbH** [ 01/06/2022 – Current ]

City: Aachen

Country: Germany

- Creation of dashboards for user interaction with the Life cycle assessment (LCA) calculating tool
- Research on LCA related topics and economic metrics
- Evaluation of the current product

### Coordinator

**Cologne Association for European cooperation** [ 01/08/2019 – Current ]

City: Cologne

Country: Germany

- Planning of an economic forum in Warsaw
- Development of an agenda which includes current challenges for the future generation
- Acquisition of guest lectures and company visits to complement the agenda

### Active member

**Energie Forum Aachen e.V.** [ 01/06/2022 – Current ]

City: Aachen

Country: Germany

- Contact person for energy-technology-related questions
- Preparation of a scientific blog for energy engineering news and trends
- Preparation and recording of a Podcast about energy related topics

## Working student

**Flaixible GmbH** [ 01/11/2018 – 01/04/2021 ]

City: Aachen

Country: Germany

- Customer Service for Vodafone via ASM
- System optimization for internal processes
- Onboarding new employees for a smooth start

## EDUCATION AND TRAINING

---

### Abitur

**Gesamtschule der Stadt Brühl** [ 01/09/2007 – 01/06/2016 ]

Address: Otto-Wels-Straße 1, 50321 Brühl (Germany)

Website: <https://www.europagesamtschule-bruehl.de/home.html>

Field(s) of study: Focus on mathematics and physics

Final grade: 2.0

### Bachelor in Industrial Engineering (B.Sc.)

**RWTH Aachen University** [ 01/09/2016 – 01/09/2021 ]

Address: Templergraben 55, 52062 Aachen

Website: <https://www.rwth-aachen.de/go/id/a/?lidx=1>

Field(s) of study: Energy Engineering

Final grade: 2.9

Type of credits: ECTS – Number of credits: 210

Thesis: Development of a modular, cloud-based computational model for uncertainty determination on HiL test benches

- Development of an application that determines the measurement uncertainty of physical quantities (temperature, volume flow rate, pressure, humidity) for a heat pump HiL (hardware in the loop) test bench
- Determination of the uncertainty propagation for the calculated subsequent quantities (heat flows and other heat pump metrics) using the GUM
- Implementation as a real time application integrated in our IoT cluster. The modular behavior enables a solution-oriented exchange of the sensor technology and integration in the regarding digital twin

### Master Energy Engineering (M.Sc.)

**RWTH Aachen University** [ 01/09/2021 – Current ]

Address: Templergraben 55, 52062 Aachen (Germany)

Website: <https://www.rwth-aachen.de/go/id/a/?lidx=1>

Field(s) of study: Specialization energy supply

## LANGUAGE SKILLS

---

Mother tongue(s): **German**

Other language(s):

### English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

### Dutch

LISTENING B1 READING B1 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

## **DIGITAL SKILLS**

---

Microsoft/Microsoft office / Proficient in Python Java Javascript C C++ and some knowledge of Matlab / Dymola/ Modelica / Fiware / CAD / Convolutional Neural Networks / Neural Networks

## **SOCIAL AND POLITICAL ACTIVITIES**

---

### **Youth Group Leader**

[ Aachen, 01/04/2014 – Current ]

As a scout leader, I have been mentoring children and young adults on a weekly basis and on longer trips for 9 years now. We are committed to both our nature and social issues and encourage the development of children towards independent young adults.