

PERSONAL DETAILS

Felix Schomburg

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born on the 13th of March, 1991

in Hannover

Education degree

Master of Science



CURRICULUM VITAE

EDUCATION

- 04.2015 – 06.2017 **Master: Electromobility**
Technische Universität Braunschweig
Major elective: Electricale Systems
Master's thesis: Simulation-based optimization of the energy density of Lithium-Ion batteries
- 09.2010 – 03.2015 **Bachelor: Electrical power engineering**
Hochschule Hannover
Bachelor's thesis: Creation and validation of a qualified measuring system for force measurement on lithium-ion cells
- 08.2003 – 06.2010 **Abitur (equivalent to A-level)**
Leibnizschule Hannover

WORK EXPERIENCE

- since 12.2020 **Research Associate, *Methods for Battery Management of the University Bayreuth, Bayreuth***

Research focus: Model-based investigation of charging procedures and their influence on the ageing behavior of lithium-ion batteries
- Physical multiscale simulation of surface processes during charging
 - Development of characterization and assessment methods
 - Member of the third-party project *FormEL*
- 03.2019 – 10.2020 **Engineering Consultant, *ALTEN Technology GmbH, Braunschweig & Hannover***

Software Developer
- Agile, model-based function development for real-time embedded systems used for autonomous driving with SPICE-compliant development methods
 - Support during application, testing, analysis and commissioning at system level
- Test Engineer*
- Execution and evaluation of manual and semi-automatic HIL tests on Battery management systems (BMS)
- 07.2017 – 02.2019 **Recovery from knee surgeries**
- Including: further education courses in english (B2-C1 level) and programming (C++ / MS Visual C++.NET, Java)
- 12.2016 – 06.2017 **Master's degree candidate in the research group batteries, *Institute of Energy and Systems Engineering of the TU Braunschweig***
- Implementation of an optimization algorithm to maximize the energy density of lithium-ion batteries by varying the electrode design
 - Comparison of various optimization methods and reduction of the battery model to improve the computing speed

- 12.2015 – 11.2016 **Student assistant in the battery research group, *Institute of Energy and Systems Engineering of the TU Braunschweig***
- Modification, development and implementation of functions in electrochemical simulation models of lithium-ion cells
 - Presentation and processing of simulation data
- 09.2014 – 12.2014 **Bachelor's degree candidate in the cell team, *Deutsche ACCUmotive GmbH & Co. KG, Kirchheim unter Teck - Nabern***
- Preparation of test plans and documentation of the measurement setup
 - Qualification of the test setup (incl. optimization loop)
 - Integration of the measurement setup into the laboratory infrastructure
- 04.2014 – 08.2014 **Intern in the cell team, *Deutsche ACCUmotive GmbH & Co. KG, Kirchheim unter Teck - Nabern***
- Project planning and construction of a measuring system for gauging the force development of lithium-ion cells
 - Request and assessment of tenders
 - Design of electrical circuits and microcontroller programming

FURTHER TRAINING, COURSES AND SUMMER SCHOOLS

- 06.2020 – 08.2020 Machine Learning (Coursera)
- 02.2020 – 06.2020 AI Programming with Python Nanodegree (Udacity)
- 01.2019 – 03.2019 Java - SE 10 (alfatraining Bildungszentrum GmbH)
- 11.2018 – 01.2019 C++/MS Visual C++.NET (alfatraining Bildungszentrum GmbH)
- 09.2016 Participant in the 9th Lower Saxony Summer School about Fuel Cells and Batteries (initiated by the CUTEK intitut of the *TU Clausthal*)
- 07.2016 Selected to participate in the DRIVE-E Academy (eMobility conference initiated by the Federal Ministry of Education and Research)

SKILLS

- Language Deutsch (native language, C2)
English (very good, C1) – CAE certificate attached (Grade: B)
- Programming Matlab & Simulink (good knowledge)
C++/Microsoft Visual C++.NET (good knowledge)
Python (basic knowledge)
Java (basic knowledge)
SQL (basic knowledge)
- Software Git (basic knowledge)
Jira (basic knowledge)

MS Office (good knowledge)
Latex (good knowledge)

F. Schirowske

Hannover, 31st October 2021