

# Yizhou ZHANG

## PERSONAL DATA

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## WORK EXPERIENCE

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<i>Current</i> SEP 2020	Industrial PhD at CEVT <i>Topic: Data driven battery health estimation</i> The project will investigate how to estimate aging state and predict the remaining useful life of the traction battery using different data sources.
<i>Sep 2020</i> OCT 2017	System validation engineer at CEVT <i>Battery software and function validation</i> Build up battery HIL system for function validation. Design and develop automatize software and functional test cases. Perform software and system tests both in the HIL and the vehicle. Fault trace and issue analysis. Support software and function development.
<i>Oct 2017</i> SEP 2016	Battery software engineer at NEVS <i>Battery Algorithm Design and Function Development</i> Design and develop battery soc and power estimation algorithm. Verify advanced lithium-ion battery management technology through battery testing and data analysis. Generate steady-state and dynamical models, identify model parameters and implement various model-based algorithms under different scenarios and evaluate their performances.

## EDUCATION

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SEP 2015-JUL 2016	Master of Science in ELECTRICAL POWER ENGINEERING, <b>Royal Institute of Technology (KTH)</b> , Stockholm, Sweden Thesis: "Modularized Battery Management System"
SEP 2014-JUL 2015	Master of Science in ELECTRICAL ENGINEERING, <b>Catholic University of Leuven</b> , Leuven, Belgium GPA: 13/20
SEP 2010-JUL 2014	Bachelor of engineer in ELECTRICAL ENGINEERING, <b>Southeast University</b> , Nanjing, China Thesis: "Identification of Dominant interarea Oscillation paths in large power grid" GPA: 87/100
SEP 2013-JUL 2014	Exchange study in ELECTRICAL AND COMPUTER ENGINEERING, <b>University of Tennessee Knoxville</b> , Knoxville, USA GPA: 3.9/4.0
JAN 2012-JUL 2012	Exchange study in ELECTRICAL ENGINEERING, <b>YuanZe University</b> , Taiwan GPA: 4.0/4.0

## RESEARCH EXPERIENCES

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FEB 2016- AUG 2016	<b>Master Thesis "Modularized Battery Management Systems for EVs"</b> National Electric Vehicle Sweden and Royal Institute of Technology (KTH) <ul style="list-style-type: none"><li>• Build electric model for EV battery.</li><li>• Design and optimize algorithm to estimate the internal states and parameters of the battery.</li><li>• Comparative study of different monitoring approaches.</li></ul>
FEB 2015- JUN 2015	<b>Feasibility study of FPI-Optimization Business</b> Catholic University of Leuven, Belgium <ul style="list-style-type: none"><li>• Analyse the feasibility of putting an optimize platform for installing FPIs into the real market</li><li>• Build a prototype to test the assumption</li></ul>
FEB 2013- AUG 2013	<b>Bachelor Thesis "Identification of Dominant inter-area Oscillation paths"</b> University of Tennessee, USA <ul style="list-style-type: none"><li>• Utilize dominant path identification algorithm using ambient PMU data function.</li><li>• Compute the power spectral density (PSD) and CPSD to identify the dominant path.</li></ul>
FEB 2013- AUG 2013	<b>Wireless charging laboratory</b> Southeast University, China <ul style="list-style-type: none"><li>• Apply Faraday's electromagnetic induction method design inductors</li><li>• Design DC-AC and AC-DC converters to modulate the waveform of the voltage.</li></ul>

## SCHOLARSHIPS AND CERTIFICATES

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2019	Coursera certificate on <b>Neural Network and Deep Learning</b>
2019	Coursera certificate on <b>Structuring Machine Learning Projects</b>
2019	Coursera certificate on <b>Convolutional Neural Network</b>
2019	Coursera certificate on <b>Improving Deep Neural Network</b>
2014	EIT KIC Innoenergy scholarship(€30,000)
2013	CSC(China Scholarship Council) scholarship(\$ 17,500)
2013	Chinese students scholarship in UTK
2010,2011	Several outstanding curriculum scholarships in SEU

## COMPUTER SKILLS

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Basic Knowledge:	PHP, MySQL, HTML, Access, $\LaTeX$ , Spice, LabVIEW, SCADE
Intermediate Knowledge:	Matlab, C++, C, Windows, Python, Canoe, Canape, INCA, Systemweaver