SHUMENG WANG

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EDUCATION BACKGROUND

Northeastern University *Boston, United States* 09.2022 - Expected 08.2027
- Ph.D. in Electrical Engineering
- Advisor: Prof. Bradley Lehman, Prof. Mahshid Amirabadi

TU Delft *Delft, the Netherlands* 09.2020 - 08.2022
- M.Sc. in Electrical Power Engineering (Track: Power Electronics and Electrical Machines)
- Advisor: Prof. Pavol Bauer, Dr. Zian Qin, Ir. Sachin Yadav
- Thesis topic: **GaN-Based Multi-Active-Bridge Converter with Hot-Swapping Capability**, score: **8.5/10**
- Related courses: Control System Design (**10/10**), Electromagnetics (**9.5/10**), Semiconductor Device Physics (**9/10**), Power Electronics (**9/10**), Power Electronic Components (**9/10**), Advanced Power Electronics (**9/10**)

KU Leuven *Leuven, Belgium* 09.2018 - 07.2020
- B.Sc. in Electronics Engineering, **Graduated with Cum laude**

Southwest Jiaotong University (SWJTU) *Chengdu, China* 09.2016 - 07.2020
- B.Eng. in Electrical Engineering and Automation (Mao Yisheng Honors College)

MASTER RESEARCH PROJECT

TU Delft DCE&S *Master Thesis Project* 12.2021 - 08.2022
- Converter details: 2.2kW GaN-based four-port Multi-Active-Bridge (MAB) DC/DC converter
- Proposed hot-swapping buffer circuit for MAB converter for surge current and surge voltage limiting
- Designed adaptive decentralized control strategy for modular hot-swapping active bridges
- Designed planar multi-port transformer with PCB winding for minimizing leakage inductance
- Designed a GaN-based prototype for high power density

INTERNSHIP EXPERIENCE

ABB *Shenzhen, China* 09.2021 - 11.2021
- Research Intern, ABB E-Mobility Technology Shenzhen Co., Ltd
- Supervisor: Dr. Ken Kuen-Faat Yuen, Mr. Yin Tang, Project domain: **Modular Power Inverter**
- Designed and refined topologies, implement multiple versions of prototypes, conduct relevant tests
- Prototypes capable of operating in parallel and three-phase mode, and operating in extreme overload conditions

HONORS & AWARDS

2021.11 AWARD OF EXCELLENCE at **ABB**
2020.07 Cum laude at **KU Leuven**

SKILLS & TECHNIQUES

- **Computer skills:**
  Circuit Analysis and PCB Design: PLECS, LTspice, MATLAB (Simulink), Multisim, Altium Designer, Eagle
  Finite Element Modelling Analysis (FEM/FEA): Julia, FEMM
  Microcontroller and FPGA Programming: C, Assembly code, Xilinx Vivado
  Other Software Skills: LaTeX, C, Java, Linux, MySQL, LabVIEW, Python
- **Language skills:**
  Chinese: Native
  English: TOEFL iBT 100