



# Xueshan Zhang

Master of Science,  
Nanoelectronics

- 20.08.1994
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## Social Network

- LinkedIn
- Github
- Git Page

## About Me

- Goal-oriented team player and deadline catcher;
- Able to work with multiple tasks and multi-cultural background;
- Solid knowledge of programming tool and environments, e.g Linux, python;
- Intensive experience with embedded firmware

## Interests

- Photography
- Cooking
- Music
- Fitness

## Education

Master of Science, Nanoelectronics  
GPA: 13.6/20.0 (Cum Laude)

- 10.2018 – 02.2020 **Technische Universität Dresden (TU Dresden)** Dresden, Germany  
In-depth studies on electronics technology, e.g. 'Molecular Electronic', 'Nano Optics' and etc.
- 09.2017 – 02.2020 **Katholieke Universiteit Leuven (KU Leuven)** Leuven, Belgium  
Take in fundamental and also state-of-art knowledge in semiconductor field, e.g. 'Semiconductor Devices', 'Integrated Circuits Packaging' and 'Electrical Components, Circuits and Sensors' and etc.

Bachelor of Engineering, Material Science and Engineering  
GPA: 3.35/4.0 (Top 20 %)

- 09.2013 – 07.2017 **University of Jinan (UJN)** Jinan, China  
Enhanced understanding of material science and engineering by courses 'Materials Physics', 'Material Science Foundation' and etc.

## Work Experience

- 01.2021 – Until Now **Validation Engineer (Yangtze Memory Technologies)** Shanghai, China

*Tasks & Achievements :*

- Build test bench and monitors for DUT using python, and trouble shoot function/performance/FW bugs via SW and HW tools (e.g protocol analyzer);
- Design auto tools to generate files with all required info from code management platform for automation test frameworks;
- Analyze data to dig out root cause of failures and put forward direction of products' optimization;

*Learning Outcomes :*

- Experience with PCIe bus, Firmware, Linux Kernel, NVMe & SPDK Driver in kernel space, Unix/Linux environment and hardware setup;
- Design for verification (code coverage, assertion based design strategies etc.);
- Data analysis and data mining;

- 06.2020 – 12.2020 **Process Support Engineer (Applied Materials)** Jinan, China

*Tasks & Achievements :*

- Inspect early phase products with eBeam inspection and metrology tool;
- Process obtained graphics via edge / are segmentation, and realize rough binning via crude decision trees;

*Learning Outcomes :*

- Image processing, e.g. edge / area segmentation methods;
- Crude decision trees for rough binning;
- e-Beam tool mechanical structure and physical theories behind;


## Awards


- 02.2020 Cum Laude Graduate Leuven, Belgium
- 07.2017 All-Round Development Scholarship - 1<sup>st</sup> Prize (1/41) Jinan, China
- 06.2017 Bachelor Thesis Competition (Department Level) - 1<sup>st</sup> Prize (10 %) Jinan, China
- 08.2015 National English Competition for College Students (NECCS) - Type C - 1<sup>st</sup> Prize (5 ‰) Jinan, China


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## Languages

 Chinese ● ● ● ●

 English ● ● ● ●


 German ●


## Hard Skills


Python Linux  $\LaTeX$  SQL

Adobe Photoshop & Illustrator

Microsoft Office MATLAB JMP


 Semiconductor Device

 Programming


 Design for Test / Debug


 Data Analysis


 Research & Development


 Microsoft Office

## Soft Skills

 Presentation Skills ● ● ● ●

 Organization Skills ● ● ●

 Interpersonal Skills ● ● ● ●

 Problem Solving ● ● ●

 Analytical Thinking ● ● ● ●

## Projects

Germany

04.2019 –  
10.2019

**Investigating High-Performance Semiconductor Coating Recipes on a mechanically flexible, plastic substrate** CFAED, Dresden

*Tasks & Achievements :*

- Design semiconductor devices architecture, manufacture it under certain flow and later use related equipments to evaluate its functionality and reliability;
- Utilize excel VBA or Origin script to do device failure analysis, optimize process flow to improve products performance and yield.

*Learning Outcomes :*

- Device failure analysis;
- Batch data processing by using Excel VBA and Origin;
- $\LaTeX$  scripting language.

11.2018 –  
04.2019

**Thermo-Optic Effect on Waveguide in Mach Zehnder Modulator** TU Dresden, Dresden

*Tasks & Achievements :*

- Mastered using script language embedded in simulation software 'Lumerical' in a short time to set up a previously designed integrated optics structure and related thermo-optic influence simulation model, reflecting in a way of 3D converged thermal gradient and calculated light modes;
- Proposed suggestions on how to optimize simulation for higher throughput and more accurate results.

*Learning Outcomes :*

- Knowledge of Finite Element Modelling;
- Research & development skills in integrated optics;
- Data visualization via MATLAB programming.

Belgium

03.2018 –  
05.2018

**Acoustic Characterization of PMUT for Gesture Recognition** IMEC, Leuven

*Tasks & Achievements :*

- Design for testing on PMUT arrays with semiconductor analysis equipment;
- Put forward advice on how to develop single PMUT performance while reduce cross-talk between neighboring PMUTs.

*Learning Outcomes :*

- Scenario and signal sensitivity analysis;
- Data visualization via MATLAB programming.

## Referee

Singapore

**Yiau Yee Chia**  
*Applied Materials*  
yiau\_yee\_chia@amat.com

Germany

**Stefan Mannsfeld**  
*Center for Advancing Electronics*  
stefan.mannsfeld@tu-dresden.de

Belgium

**Steven De Feyter**  
*KU Leuven*  
steven.defeyter@kuleuven.be

February 5, 2023

Xueshan Zhang