# Xueshan Zhang

Master of Science,
Nanoelectronics


20.08.1994

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## Social Network

Linkedin

Github

## 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 semiconductors 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 **SSD Validation Engineer (Yangtze Memory Technologies)** Shanghai, China

*Tasks & Achievements* :
- Evolve with new products validation via test program before ramping to volume manufacturing;
- Design test strategy, and based on that develop python scripts for validating SSD product quality;
- Do failure analysis with the cooperation of various teams and also firmware policy;

*Learning Outcomes* :
- Concurrent programming, and Parallel computing;
- Firmware policy and Nvme;
- Git distributed version control system;
- Linux operating system, common shell cmds and shell scripts;

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;

## Certificates

01.2017 Toefl (Score: 92) Jinan, China

12.2016 GRE (Score: 318, 3.5) Jinan, China

## Awards

02.2020 Cum Laude Graduate Leuven, Belgium

07.2017 All-Round Development Scholarship - $1^{st}$ Prize (1/41) Jinan, China

06.2017 Bachelor Thesis Competition (Department Level) - $1^{st}$ Prize (10 %) Jinan, China

08.2015 National English Competition for College Students (NECCS) - Type C - $1^{st}$ 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 failture 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 Recognization** — 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.

## Reference

Singapore — **Yiau Yee Chia**
*Applied Materials*
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Germany — **Stefan Mannsfeld**
*Center for Advancing Electronics*
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Belgium — **Bart Sorée**
*KU Leuven Coordinator*
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**September 21, 2021** **Xueshan Zhang**