Xueshan Zhang

Master of Science, Nanoelectronics

- 20.08.1994
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Social Network ———

- in 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)** In-depth studies on electronics technology, e.g. 'Molecular Electronic', 'Nano Optics' and etc.	Dresden, Germany
09.2017 – 02.2020	**Katholieke Universiteit Leuven (KU Leuven)** 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.	Leuven, Belgium

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

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

💰 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, linux kernel and HW tools (e.g protocol analyzer);
- Collect information and identify fundamental pattern / trends in data by developing automated GUI tool;
- Hands-on experience in setting up hardware test platform;
- Analyze failures and actively drive issues to closure;

Learning Outcomes :
- Experience with high-speed peripheral PCIe bus validation and debugging;
- Experience with test equipment and tool such as protocol analyzer and oscilloscope;
- Experience with general connectivity IPs (I2C/UART);
- Experience with script language such as Python, Go, and shell scripts;
- 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 - 1st Prize (1/41)	Jinan, China
06.2017	Bachelor Thesis Competition (Department Level) - 1st Prize (10 %)	Jinan, China
08.2015	National English Competition for College Students (NECCS) - Type C - 1st 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 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 22, 2023   **Xueshan Zhang**