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 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 **Validation Engineer (Yangtze Memory Technologies)** Shanghai, China

Tasks & Achievements :
- Build test bench for post-Silicon Nand Flash storage devices;
- Trouble shoot front-end and back-end function, and performance bugs of storage devices by debugging with linux kernel, scripts and hardware tools (e.g protocol analyzer);
- Understand the operating principle of power management ICs through datasheets and test results via design for test;
- Collect information and identify fundamental pattern, or trends in data by data analysis;
- Develop strategies/algorithms for analyzing results from main stream analysis software out of the purpose of competitor analysis and figure out weak points of pre-stage design;

Learning Outcomes :
- Experience with high-speed peripheral PCIe bus validation and debugging;
- Experience with general connectivity IPs (I2C / UART);
- Experience in multi-threaded / parallel programming;
- Mainly with Python; experience with C, html and shell scripts.

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

Tasks & Achievements :
- Measure critical parameters on eBeam-source wafer images with knowledge on eBeam imaging and image segmentation;
- Distinguish the types of process defects based on a large quantity of eBeam images using binary search tree algorithm, and analyze which stage of process may cause such defects;

Learning Outcomes :
- Image processing;
- Soft binning and binary search tree algorithm.

Patents

03.2023 **An algorithm of SSD competitor analysis with PCMark10 Software** Yangtze Memory Technologies
Xueshan Zhang

12.2022 **Automated deployment of software testing environment** Yangtze Memory Technologies
Xueshan Zhang et al.

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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 the architecture of organic thin film transistor (OFET), manufacture it according to design flow;
- Evaluate comprehensively the process defects of thin film component, I-V performance of OFET as a whole and performance reliability of OFETs;

Learning Outcomes :
- Device failure analysis;
- Device Design.

11.2018 – 04.2019

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

Tasks & Achievements :
- Design an integrated optics structure and simulate the thermo-optic influence on the output optical signals in simulation software 'Lumerical';
- Develop a method of achieving higher throughput of light modes and simulated signals with higher accuracy;

Learning Outcomes :
- Finite Element Method;
- Integrated optics design;
- Data visualization with Matlab.

Belgium

03.2018 – 05.2018

Acoustic Characterization of PMUT for Gesture Recognization — IMEC, Leuven

Tasks & Achievements :
- Evaluate performance of designed PMUT arrays and analyze test results;
- Present test results based on existing PMUT structure and propose advice on changing PMUT's design to improve single PMUT performance while avoiding cross-talk among neighboring PMUTs.

Learning Outcomes :
- Signal sensitivity analysis;
- Data visualization with MATLAB.

Referee

Singapore — **Yiau Yee Chia**
Applied Materials
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Germany — **Stefan Mannsfeld**
Center for Advancing Electronics
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Belgium — **Steven De Feyter**
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