Xueshan Zhang

Master of Science,
Nanoelectronics

20.08.1994

Dongying, Shandong, China

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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', 'Semiconductor Physics', 'Mesoscopic Physics', '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 by courses 'Quantum Physics', 'Materials Physics', 'Material Science Foundation' and etc.

Work Experience

01.2021 – 03.2023 **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 by debugging with linux kernel, scripts and hardware tools (e.g protocol analyzer);
- Understand the operating principle of power management ICs through data sheets and its influence on the connected sub components via different channels;
- Design algorithms and strategies to identify fundamental pattern, or trends in data by data analysis;

Learning Outcomes :
- Experience with high-speed peripheral PCIe bus validation and debugging;
- Experience with protocols, e.g NVMe, ATA Security, and PCIe;
- Experience with general connectivity IPs (I2C and UART);
- Experience with data analysis via Pandas, NumPy and etc.;
- Program mainly with Python, and a few 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 | C++ | Linux | Kernel | LaTeX | SQL | Adobe Photoshop & Illustrator | Microsoft Office | MATLAB

- 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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