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 :
- Involve in verification and validation the reliability of storage product before its mass production phase;
- Design for test via python, e.g voltage control, concurrent and parallel programming;
- Debug issues with collaboration between hardware and software, mainly on linux operating system, with required knowledge base on protocols, firmware, controller, PCIe topology and CPU architecture;

Learning Outcomes :
- Concurrent programming, and Parallel programming;
- Protocols, e.g PCIe, NVMe and etc.;
- Git distributed version control system, Jira project tracking software;
- Data analysis, e.g pandas, numpy, matplotlib and etc.;
- Linux operating system, e.g remote fetch and manage files;

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^{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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Master of Science,
Nanoelectronics

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.

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

March 7, 2022 — Xueshan Zhang