

# Zhiying Liu

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## EDUCATION

M.Sc, Computer science and communication engineering, Department of Media Technology and Software Engineering, Gerhard-Mercator-Universitaet, Duisburg, Germany, 04.2002.

M.Eng. Digital Image Processing, Department of Photoelectron Information Engineering, Shandong University, Jinan, P.R.China, 07.1994.

B.Sc, Technical Optics, Department of Optics, Shandong University, Jinan, P.R.China, 07.1991.

## PROFESSIONAL EXPERIENCE

**08.2005 – present:** Ph.D by research, Software Quality Research Laboratory (SQRL) at the University of Limerick, Ireland.

**05.2002 – 05.2005:** Software Engineer, VCS AG, Bochum, Germany.

Participated in development of some space flight ground segment projects.

- In a data service subsystem project, I developed and tested the user API and some software units (in C++);
- In an integrated management subsystem project, I was responsible for part of the software components development and the verification test for the system (in Java);
- In a test tool project, I have developed a GUI application to conveniently manage the configuration files of the system (in Java);
- In a message and control communication subsystem project, I have developed the program to test the communication among different platform (windows and linux), different languages (Java and C++) and different compilers (windows visual studio, windows g++ and linux g++);
- Drafted some user's manual for our products.

**08.2001 – 04.2002:** Fraunhofer-Institut for Microelectronic Circuit and System - IMS Duisburg, Germany. Thesis work with topic "Investigation of self-organized ad-hoc network in Bluetooth-Standard." A Bluetooth baseband link controller is implemented using Telelogic Tau UML and SDL.

**09.1998 – 12.1998:** Analyst Programmer, Keppel Bank of Singapore, Singapore.

Participated in a trade financial project (Merger of Keppel and TatLee Bank). Responsible for oracle programming in PL/SQL, SQL\*ReportWriter and SQL\*Loader on UNIX.

**08.1994 – 05.1998:** Engineer, Centre for Space Science and Applied Research (CSSAR), Chinese Academy of Sciences (CAS), China.

- Oracle Database Administrator. Responsible for database security management, database organization, performance monitoring and tuning, access control, backup and recovery, and troubleshooting. Meanwhile I participated in the system requirement analysis and design, responsible for database design for the Payload Operation and Application Software System.
- Participated a prototype development and developed programs in C, Pro\*C and Oracle Forms on UNIX and Windows.
- Participated in the project “Application of Neural Networks on Image Compression and Signal Detection for Deep Space Probing Systems,” one of the focused projects of CAS. I was responsible for image processing.
- Principal investigator of the project “Image Compression and Restoration Using Wavelet Transformation,” a Youth Fund Project of CAS, completed a technical report and a series of C Programs on UNIX.

## **PUBLICATIONS**

[1] Zhiying Liu, General Select and Statistics Process Using Oracle Dynamic Language, *Computer Engineering & Application*, Vol.33, No.2, 1997.

[2] Zhiying Liu, Methods of Improving Time Efficiency of a Software System Based on Oracle Data-base, *Computer Application*, Vol.16, No.2, 1996.

[3] Bingrong Zhang, Zhiying Liu, Wenyi Chen, A Real Time Scheme of On-line Measurement of Screw-thread Steel Bar, *Proc. 11th SPIE International Conference on Photoelectron*, Vol.2899, 1996.

[4] Zhiying Liu, Wenyi Chen, Zuzhou Yue, Experimental Simulation of On-line Measurement of Deformed Steel Bar, *Optronics. Lasers*, Vol.5, No.4, 1994.

[5] Zhiying Liu, Zuzhou Yue, Wenyi Chen, Simulated On-line Measurement of Deformed Steel Bar, *Quantum Electronics*, Vol.11, No.2, 1994.

[6] Zuzhou Yue, Zhiying Liu, Wenyi Chen, Automatic Recognition of Hand-writing Post Codes, 1994. *Quantum Electronics*, Vol.11, No.2, 1994.

[7] Wenyi Chen, Benhe Jiang, Zhiying Liu, Digital Image Processing and its Application in the CCD Measurement, *Proc. 1993 SPIE Symp. on Measurement Technology and Intelligent Instrument*, Vol.2101, 1993.