

Zheng LU

- CONTACT INFORMATION School of Computing National University of Singapore Computing 1 13 Computing Drive Singapore 117417 *Phone:* (+65) 65164925 *E-mail:* luzheng@comp.nus.edu.sg *Website:* www.luzheng.org
- RESEARCH INTERESTS Computer Vision and Image Processing, specially:
 - Computer vision techniques in eHeritage
 - Computational photography
- EDUCATION **National University of Singapore**
Ph.D, Computer Science
 - Thesis Topic: N.A.
 - Advisor: Associate Professor Michael S. Brown
 - Area of Study: Computer Vision and Image ProcessingBachelor of Computing, Computer Science, Jul 2004
 - Minor in Mathematics
- AWARDS National University of Singapore Research Scholarship, 2008 to 2010
 - Monthly stipend
 - Full school fee and allowanceGLC Scholarship of Singapore for P.R.C. Students, 1999 to 2004
 - Offered by Singapore government linked corporations.
 - Full school fee, accommodation and allowance.
- PUBLICATIONS
 1. Fanbo Deng, Zheng Wu, Zheng Lu, Michael S. Brown. *A User-Assisted Software Suite for Converting Old Documents to Black-And-White*. Joint Conference on Digital Libraries (JCDL) 2010.
 2. Zheng Lu, Yu-Wing Tai, Moshe Ben-Ezra, Michael S. Brown. *A Framework for Ultra High Resolution 3D Imaging*. IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2010.
 3. Zheng Lu, Zheng Wu, Michael S. Brown. *Interactive Degraded Document Binarization: An Example (and Case) for Interactive Computer Vision..* IEEE Workshop on Application of Computer Vision (WACV) 2009. (Oral)
 4. Zheng Lu, Zheng Wu, Michael S. Brown. *Directed Assistance for Ink-Bleed Reduction in Old Documents*. IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2009.
 5. M. Amans, C. Yeh, Michael S. Brown, Zheng Lu, G. Shih. *Wireless Devices Enhances Resident Case Conference*. American Roentgen Ray Society (ARRS) Annual Meeting, April 2009.
 6. C. Yeh, M. Amans, G. Shih, F. Kutch, Michael S. Brown, Zheng Lu. *Nintendo Wii Remote (Wiimote) as Alternative Input Device for Reviewing Radiology Exams*. American Roentgen Ray Society (ARRS) Annual Meeting, April 2009.

PROJECTS

1. *GigaPixel Camera*, <http://www.dgcam.org>

Emerging applications in virtual museums, cultural heritage and digital art preservation requires very high quality and high resolution imaging of objects. In this project we have designed and built digital tile-scan large format camera capable of acquiring high quality and high resolution images of static scenes. In March 2010, we went with the camera to Dunhuang caves and captured over a tera-bytes data worth of data that never captured before at the same details and clarity.

2. *Nintendo Wii Remote (Wiimote) as Alternative Input Device for Reviewing Radiology Exams*

This project is a collaboration between my advisor and Asst. Prof. George Shih, MD from the Weill Cornell Medical Center in New York. We co-developed the software used by the Cornell researcher's study. The study appeared on Singapore local Chinese newspaper. *Press coverage: Reuters News, Science Daily, etc.*

INVITED TALKS

1. "Computational Post-processing and Calibration in Photography", Dunhuang Academy, China, Apr 2010.

ACADEMIC EXPERIENCE

Microsoft Research Asia

Research Internship

Aug 2009 to Jun 2010

- Working on GigaPixel Camera.
- Capturing ultra high resolution images of statues and frescoes in Dunhuang caves collaborated with Dunhuang Academy.

National University of Singapore

Part-time Teaching Assistant

Jan 2008 to Apr 2009

- Tutored weekly on Software Engineering (CS2103).
- Graded course project reports and demonstration.

Research Assistant, Software Engineering Lab

Jan 2007 to Jan 2008

- Developed and maintained XVCL processor. XVCL is a meta-level language developed in SE lab, aiming for better reusability and maintainability of software systems.
- Developed and maintained XVCL Workbench including debugger, analyzer, visualizer, etc. XVCL Workbench is an IDE for XVCL (based on Eclipse platform). software engineering topics.
- Maintained XVCL website and Trac server (tracking system for XVCL related projects) for SE lab.
- Assisted to supervise Honor Year Project and Undergraduate Research Opportunities Project students who works on XVCL related projects.

PROFESSIONAL EXPERIENCE

Fuji Xerox Singapore Software Center

Software Engineer

Jun 2004 to Dec 2006

- Developed web services and applications using .Net technology.
- Developed commercial software and its plugins (dll) using C++ and Java.
- Developed tools for internal use to reduce team workload using python and perl.
- Localized commercial software into Simplified Chinese, Traditional Chinese and Korean version.
- Maintained and enhanced software developed using C++ with MFC.
- Unit and System testing of commercial software including memory leak test.
- Prepared training for software & SDK customers.
- SQA representative in charge of SQA activities of two project teams (following CMMI).

TECHNICAL SKILLS

Extensive hardware and software experience in operation system and information technology.

Programming: C, C++, Matlab, Java, C#, Python, Perl, PHP, UNIX shell scripting, SVN, .Net, CSS & web design, and others.

Operating Systems: Microsoft Windows, Apple OS X, Linux, BSD, and other UNIX variants.