

Zheng LU

CONTACT INFORMATION	School of Computing National University of Singapore Computing 1 13 Computing Drive Singapore 117417	Phone: (+65) 96776158 E-mail: luzheng@comp.nus.edu.sg Website: http://www.luzheng.org
RESEARCH INTERESTS	Computer Vision and Image Processing, specifically: <ul style="list-style-type: none">• Computational photography• Applied computer vision for eHeritage	
EDUCATION	Ph.D, Computer Science National University of Singapore <ul style="list-style-type: none">• Advisor: Associate Professor Michael S. Brown• Area of study: computer vision and image processing	Expected graduation, Nov 2011
	Bachelor of Computing, Computer Science National University of Singapore <ul style="list-style-type: none">• Minor in mathematics	2000 to 2004
AWARDS	Award of Excellence, Microsoft Research Asia Internship Program, 2009 to 2010 National University of Singapore Research Scholarship, 2008 to 2010 <ul style="list-style-type: none">• Monthly stipend and University fees paid. GLC Scholarship of Singapore for P.R.C. Students, 1999 to 2004 <ul style="list-style-type: none">• Full scholarship offered by the Singapore Government covering undergraduate studies at NUS.	
ACADEMIC EXPERIENCE	Professional Activity Program Committee, International Conference on Computer Vision (<i>ICCV</i>) 2011. Program Committee, Asian Conference on Computer Vision (<i>ACCV</i>) 2010. Program Committee, The 4th Pacific-Rim Symposium on Image and Video Technology (<i>PSIVT</i>) 2010. Microsoft Research Asia <i>Research Internship</i> Aug 2009 to Jun 2010 <ul style="list-style-type: none">• Software for controlling custom-designed Gigapixel camera http://www.dgcam.org• Managed a project to capture ultra high resolution images of statues and frescoes in Dunhuang caves, in collaboration with the Dunhuang Academy. National University of Singapore <i>Research Assistant</i> Sep 2010 to Present <ul style="list-style-type: none">• For project entitled: “Hyperspectral Imaging of Old and Damaged Manuscripts”.• Developed and maintained software to visualize hyperspectral imaging data. <i>Part-time Teaching Assistant</i> 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 and workbench (based on Eclipse platform) including debugger, analyzer and visualizer. XVCL is a meta-level language developed in SE lab, aiming for better reusability and maintainability of software systems.
- Assisted to supervise Honor Year Project and Undergraduate Research Opportunities Project students who worked on XVCL related projects.

PATENT

1. 61/474,328 “In-Video Product Annotation with Web Information Mining”, filed on Apr 12, 2011.

INVITED TALKS

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

PROJECTS

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

Emerging applications in virtual museums, cultural heritage and digital art preservation require very high quality and high resolution imaging of objects. In this project we have designed and built a 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-byte of data that has never been captured before with the same detail 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 a software used by the Cornell researchers. *Press coverage: Reuters News, Science Daily, etc.*

PUBLICATIONS

1. **Zheng Lu**, Wei Luo, Zhijun Sun, Moshe Ben-Ezra, Michael S. Brown. *Imaging Buddhist Art with a Digital Large-Format Camera: A Field Study Report from the Dunhuang Caves*. ACM Journal on Computing and Cultural Heritage (**JOCCH**), under minor revision.
2. Guangda Li, Meng Wang, **Zheng Lu**, Tat-Seng Chua, Richang Hong. *In-Video Product Annotation with Web Information mining*. ACM Transactions on Multimedia Computing, Communications and Applications (**TOMCCAP**), under minor revision.
3. Matthew R. Amans, George Shih, **Zheng Lu**, Cliff Yeh, Michael S. Brown. *Wiimote Viewer Enhances Resident Case Conferences*. Journal of the American College of Radiology (**JACR**) 2010.
4. 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.
5. **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.

6. **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)
7. **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.
8. 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.
9. C. Yeh, M. Amans, G. Shih, F. Kutch, Michael S. Brown, **Zheng Lu**. *Nintendo Wii Remote (Wiimoet) as Alternative Input Device for Reviewing Radiology Exams.* American Roentgen Ray Society (ARRS) Annual Meeting, April 2009.

INDUSTRIAL
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

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

REFERENCES

Assoc. Prof. Michael S. Brown

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Dr. Moshe Ben-Ezra

Lead Researcher, Visual Computing Group

Microsoft Research Asia, Beijing, China

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Dr. Yasuyuki Matsushita

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