

# Kwang B. Lee

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## CURRICULCUM VITAE

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### 1. PROFESSIONAL EXPERIENCE

#### **Adjunct Professor in Texas A&M University-Commerce Jan. 2015 ~ Current**

- Adjunct Professor in the Department of Computer Science and Information Systems in Texas A&M University, PO Box 3011, Commerce, TX 75429 (Tel: 903-468-8151)
- Teaching under/graduate students

#### **Patent Examiner in USPTO**

**July 2012 ~ Current**

- Job Title: Patent Examiner – Computer Science

#### **Adjunct Professor in Tomas Edison State College**

**Oct. 2009 ~ Current**

- Adjunct Professor in the Computer Science department in Tomas Edison State College, NJ, USA
- Teaching undergraduate students in Computer Science and Computer Information Systems department

#### **Faculty in the University of Northern Virginia**

**June 2007 ~ Aug 2012**

- Faculty member in the School of Technology in the University of Northern Virginia
- Job Title: Teaching graduate and undergraduate students, advising students regarding academic and curricular career matters, assisting each program/class to contain essential curricular components and content, assisting the college's library collection development by selecting, evaluating in appropriate discipline, and so on

#### **Main Teaching Courses:**

- **CSCI210 Database Management**
- **IMSC341 Network and Operating System Essentials**
- **CSCI501 Structure of Programming Language with C++**
- **CSCI512 Computer Architecture**
- **CSCI524 Principles of Programming Languages**
- **CSCI528 Data Structures and Algorithms**
- **CSCI530 Operating Systems**
- **CSCI552 Human Computer Interaction (HCI)**
- **CSCI553 Mobile Application Design**
- **CSCI553 Expert Systems**

- **BMGT531 Business Intelligence**
- **IMSC574 Management Information Systems**
- **IMSC518 Technologies and Operations Management**
- **CSCI610 Decision Support System (Doctoral Class)**
- **IMSC653 Seminar in Emerging Technology (Doctoral Class)**
- **IMSC652 Seminar in Man-Machine Technologies (Doctoral Class)**

University of Northern Virginia, 7601 Little River Tnpk., Annandale, VA 22003 (Tel: 703-941-0949)

### **Senior Mobile SW Engineer in SAMSUNG**

**Nov. 2003 ~ May 2007**

- Job Title: Project leader for managing mobile software projects and a senior mobile software engineer for developing mobile device solutions
  - Involved in developing the design and development of mobile applications as per the new PDAs and Smart phone models
  - Involved in planning to build new mobile projects for developing User Interfaces and 3<sup>rd</sup> applications
  - Analyzing the business logics and leading team members for making necessary changes in the project as per ad-hoc requirements
  - Understanding the phone source system and mapping the data structure from the code
- Ported Blackberry wireless solution into SAMSUNG's PDA
- Designed and developed Picture Mail MMS solution on SAMSUNG's PDA
- Designed and developed World Clock 3<sup>rd</sup> application on SAMSUNG's PDA
- Designed and developed Voice Assist 3<sup>rd</sup> application on SAMSUNG's Palm device

R&D Group 1, Mobile Communication Division, SAMSUNG Electronics Co., 416 Maetan-dong, Yeongtong-gu, Suwon-si, South KOREA, 442-600 (Tel: 82-31-200-3501)

### **Research Assistant in RPI**

**May 2002 ~ Aug. 2003**

- Designed and developed new user interfaces for small screen computers, PDAs or handheld devices
- Conducting usability test

Engineering Science Department, Rensselaer Polytechnic Institute, New York, USA

### **Summer Internship in SAMSUNG**

**May 2000 ~ July 2000**

- Designed & implemented LCD graphic libraries and surveyed WAP (Wireless Application Protocol), Software Center, SAMSUNG Electronics Co., KOREA

### **Teaching Assistant in TAMU-C**

**Jan. 1999 ~ Aug. 1999**

- Lab teaching C/C++ program language to graduate students

The Department of Computer Science, Texas A&M University-Commerce, Commerce, Texas, USA

**Research Assistant in TAMU-C****Jan. 1998 ~ Dec. 1998**

- Designed and developed Data Mining algorithm based on Regression Analysis

The Department of Computer Science, Texas A&M University-Commerce, Commerce, Texas, USA

**Database SW Engineer in KPMA****May 1993 ~ Aug. 1996**

- Job Title: IBM AS/400 D/B machine SW programmer for implementing Korea Pharmaceutical Information Systems and developing database applications to serve member companies

- Designed and developed Korea Pharmaceutical Information System for the Korea Pharmaceutical Companies
- Trained company members to learn technical information
- Published technical papers for Korea pharmaceutical companies
- Researched & planned management strategies for Korea pharmaceutical companies

Korea Pharmaceutical Manufacturers Association (KPMA), Bangbae-dong, Seoul, South KOREA, 137-060  
(Tel: 82-2-581-2101)

**Teaching Assistant in AJOU University****Jan. 1999 ~ Aug. 1999**

- Teaching a database course to undergraduate students

Ajou University, San 5, Woncheon-dong, Yeongtong-gu, Suwon, Gyeonggi-do, South KOREA, 443-749  
(Tel: 82-31-219-2014)

**2. EDUCATION****Ph.D. in Engineering Science, Rensselaer Polytechnic Institute, Troy, New York****Jan. 2000 ~ Aug. 2003**

- Department of Engineering Science, **Majored: Human Computer Engineering**

- Dissertation: The Development of User Interfaces for Small Screen Computers

- Advisers: Professors Roger A. Grice and James Watt

**M.S. Computer Science, Texas A&M University-Commerce, Commerce, Texas****May 1997 ~ Aug. 1999**

- Department of Computer Science **Majored: Data Mining and Networks**

- Project: The Development of an Efficient Data Mining Algorithm in the Large Volume of Market Basket Data

- Adviser: Professor Sang C. Suh

## **M.B.A. Ajou University, South Korea**

**Mar. 1991 ~ Feb. 1993**

- Department of MIS
- Thesis: A Design and Development of a Decision Support System (DSS) for Commercial Loan Approvals
- Adviser: Professor Tae-Sik Ahn

**Majored: Decision Support and Expert Systems**

## **B.S. Mathematics, Ajou University, South Korea**

**Mar. 1984 ~ Feb. 1991**

- Department of Mathematics
- Graduated with cum laude honors
- Military service for 27 months

### **3. INTEREST AREAS**

#### **Research Interests:**

- Human Computer Interaction (HCI)
- Graphical User Interfaces (GUI)
- Usability Engineering
- User-Centered Design
- Mobile Application Design
- Data Mining/Knowledge Discovery
- Information Visualization
- Visual Programming
- Web-Based Information Systems

#### **Teaching Interests:**

- **Fundamental computer science courses:**

- Data Structures
- Object-Oriented Design and Programming
- Principle of Programming Language
- Computer Algorithms
- Computer Theory/Compile Theory
- Operating Systems
- Computer Architecture

- **Special topic courses:**

- Web Programming Languages (XML, Java, Java Script, PHP)
- System Programming Languages (C, C++, C#)
- Mobile Application Programming Languages (Window CE, J2ME, Palm)
- Mobile Application Design (Mobile HCI/ Usability, Interfaces Technique, Programming)

- Usability Engineering
- Human Computer Interfaces
- Data Mining
- Expert Systems/Decision Support Systems
- Management Information Systems

## 4. PUBLICATIONS

### <Conference, Book Chapters and Journal Articles>

- **Kwang B. Lee** and Raied Salman, The Design and Development of Mobile Collaborative Learning Application using Android, *Journal of Information Technology and Application in Education (JITAE)*, Vol.1, No. 1, 2012, ISBN 2227-6459  
<http://www.jitae.org/paperInfo.aspx?ID=12>
- **Kwang Lee** and Khethavath Praveen, Introduction to Mobile Learning Systems and Usability Factors, *Third Conference on Theoretical and Applied Computer Science (TACS 2012)*, held by Oklahoma State University, Stillwater, OK, USA, February 2012  
<http://cs.okstate.edu/tacs12/program.html>
- **Kwang B. Lee**, Developing Mobile Collaborative Learning Applications for Mobile Users, *International Journal of Interactive Mobile Technologies*, Vol.5, No. 4, 2011, ISBN 1865-7923  
<http://www.i-jim.org>
- **Kwang Lee** and Abdul Razaque, Suggested Collaborative Learning Conceptual Architecture & Applications for Mobile Devices. *HCI International 2011*, held by HCI International Organization in Orlando in Florida, July 2011  
<http://www.hcii2011.org/index.php>  
<http://www.springerlink.com/content/j0209q8368m050tg/>
- Abdul Razaque, **Kwang Lee**, R. Salman, and Farzan Soroushi, Proactive Patch Peer for Video-on-Demand Streaming in Hybrid Network. *IADIS International e-Society 2011*, Avila, Spain, March 2011, ISBN 978-972-8939-46-5  
<http://www.iadisportal.org/e-society-2011-proceedings>  
<http://www.iadisportal.org/digital-library/proactive-patch-peer-for-video-on-demand-streaming-in-hybrid-network>
- **Kwang B. Lee**, Using Zooming Applications for Mobile Devices, *Advances in Human-Computer Interaction*, published by Excellence and Education Publishing, ISBN 978-3-902613-38-7, August 2008  
[http://www.intechopen.com/books/show/title/human\\_computer\\_interaction](http://www.intechopen.com/books/show/title/human_computer_interaction)
- **Kwang B. Lee**, Support Zooming Tools for Mobile Devices, *HCI International 2007*, held by HCI International Organization in Beijing China, July 2007  
[http://www.hci-international.org/index.php?module=conference&CF\\_op=view&CF\\_id=5](http://www.hci-international.org/index.php?module=conference&CF_op=view&CF_id=5)  
<http://www.springerlink.com/content/224882135n2h630v/>
- **Kwang B. Lee** and Roger A. Grice, The Design and Development of User Interface for Voice Applications in Mobile Devices, *IPCC 2006*, held by IEEE Professional Communication Society, October 2006

<http://www.rose-hulman.edu/Users/faculty/williams/OldFiles/Public/PDF%20Files/43.pdf>

- **Kwang B. Lee** and Roger A. Grice, Developing a New Usability Testing Method for Mobile Devices, *IPCC 2004*, held by IEEE Professional Communication Society, September 2004  
[http://ieeexplore.ieee.org/xpl/freeabs\\_all.jsp?tp=&arnumber=1375285](http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?tp=&arnumber=1375285)
- **Kwang B. Lee** and Roger A. Grice, Embedded-Zooming Applications for Personal Digital Assistants (PDAs), *IPCC 2003*, held by IEEE Professional Communication Society, September 2003  
[http://ieeexplore.ieee.org/xpl/freeabs\\_all.jsp?arnumber=1245479](http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=1245479)
- **Kwang B. Lee** and Roger A. Grice, Adaptive Viewing Methods for the Web on Personal Digital Assistants (PDAs), *SIGDOC 2003*, held by ACM, October 2003  
<http://dl.acm.org/citation.cfm?id=944895>
- **Kwang B. Lee** and Sang C. Suh, "Integration of Regression Analysis with Association Rules for Effective Data Mining," *EXPERTSYS-98 (Artificial Intelligence Applications, Subject Editor: Derya A. Jacobs)*, pp83-88, IITT International, France, 1998, ISBN 2-907669-36-2
- **Kwang B. Lee**, A Design and Development of Marketing Information System for Pharmaceutical Companies, *Korean Journal of Pharmaceutical Industry*, KPMA, July 1994
- **Kwang B. Lee**, The Report of Computerization Korea Pharmaceutical Industry, *National Information Paper*, National Computerization Agency in Korea, 1994

#### <Theses>

- **Kwang B. Lee**, The Design and Development of User Interfaces for Small Screen Computers, for Ph.D., Graduate School of Rensselaer Polytechnic Institute, August 2003
- **Kwang B. Lee**, The Efficient Algorithm in the Large Volume of Market Basket Data for the Association Rules, for M.S., Graduate School of TAMUC-Commerce, August 1999
- **Kwang B. Lee**, A Design and Development of a Decision Support Systems for Commercial Loan Approvals, for MBA, Graduate School of Ajou University, 1993

## 5. FUNDED RESEARCH PROJECTS

- 05/21/2012 ~ 08/17/2012, "Online Course Developer," supported by Strayer University, USA, \$3,000.00
- 01/01/2007 ~ 03/31/2007, "Mobile Multimedia Research Center," supported by IITA (Institute for Information Technology Advancement, South KOREA, \$6,000.00

## 6. PATENTS

### U.S. Patent

- Data Displaying Apparatus and Methods, U.S. Patent No 7232058.

### South Korea Patents

- Apparatus and method for displaying data, Patent No 2004-0014436.
- Apparatus and method of providing for flexible mobile device, Patent No 10-2006-0024891.

## **7. AWARDS/HONORS**

- Faculty Certification: eCollege Platform Certification IV from Strayer University, August 26, 2008
- Certificate of Achievement from Sigma Xi, The Scientific Research Society, April 8, 1998
- Academic Scholarship for excellent graduate student in Ajou University, the 2<sup>nd</sup> term of 1991
- Academic Scholarship for excellent student in Ajou University, the 2<sup>nd</sup> term of 1990

## **8. TRAINING**

- Building Better Business Intelligence with SAS from SAS®, April 25, 2012
- Security: Computing in an Adversarial Environment from ACM, April 12, 2012
- Online Teaching Techniques for Career College Instructors from CEE, Dec. 08, 2009
- Documenting Teaching Excellence: Preparing for my PPAR from EDMC, April 13, 2009
- Java Script Language Programming course in SAMSUNG Korea, Feb 01 ~ Feb 28 2007
- Windows Programming with C# course in SAMSUNG Korea, Jan 01 ~ Jan 31, 2007
- TCP/IP Network course in SAMSUNG Korea, Dec 01 ~ Dec 31 2006
- Multimedia Codec course in SAMSUNG Korea, Nov 09 ~ Nov 10 2006
- Mobile computing for next generation course in SAMSUNG Korea, Sept 01 ~ Sept 30 2006
- Network protocol design course in SAMSUNG Korea, Aug 28 ~ Sept 01 2006
- IEEE Principles of Software Engineering course in SAMSUNG Korea, Aug 01 ~ Aug 31 2006
- Next Java technology course in SAMSUNG Korea, July 01 ~ July 31 2006
- Java and XML programming course in SAMSUNG Korea, June 01 ~ June 30 2006
- Window API programming course in SAMSUNG Korea, Mar. 01 ~ Mar. 31 2006
- Introduction of All IP course in SAMSUNG Korea, Jan. 18 ~ Jan. 20 2006
- Basic GSM/GPRS theory course in SAMSUNG Korea, May 11 ~ May 13 2005
- Basic Mobile protocol course in SAMSUNG Korea, Jan. 11 ~ Jan. 14 2005
- Six Sigma projects in SAMSUNG Korea, Aug. 01 ~ Dec. 02 2005
- Introduction of Embedded HW system course in SAMSUNG Korea, Dec. 01 ~ Dec. 31 2004
- IBM AS/400's Operating system education in IBM Korea, Oct. 18 ~ Oct. 28 1993
- IBM AS/400's D/B design education in IBM Korea, Nov. 7 ~ Nov. 11 1993

## **10. ACTIVITIES**

- Member of ACM (Association for Computing Machinery) since 2002
- Member of KSEA (Korean-American Scientist and Engineers Association) since 2002
- Church Web Master, <http://www.kpcalbany.org>, 2001 ~ 2002
- Mu Ji Gae camp (Korean culture camp for adopted children) Volunteer, summer, 2001

## **11. REFERENCES**

- Available upon request