# Tsz Muk (Jimmy) Kung

# **QUALIFICATIONS**

- **▶** Programming Language Skills
  - o C/C++, Java / Java3D, Python, Pascal, Matlab.
- **▶** Web Development Skills
  - o Flash, Flex, Action Script, HTML/XHTML, JavaScript, ASP, XML, CSS.
- **▶** Database Skills
  - o MySQL, PL/SQL.
- **▶** Software Proficiencies
  - Microsoft Visual Studio (6.0, .NET), Microsoft Office (Word, Excel, FrontPage, Outlook, Access, PowerPoint, Visio).
  - Macromedia Product (Flash, Dreamweaver, Firework), Acrobat Professional, Acrobat PhotoShop, Acrobat PageMaker, Gimp.
  - o Moray, POV-Ray, 3D MAX, Truespace.
  - Matlab.
  - MySQL, Symantec Ghost, FTP, SSH, ASP.NET, PyQt, Logic Work, LC3, Dev C++, ERD Commander.
- **▶** Operating System Proficiencies
  - o Linux, Dos, Window 95/98/2000/XP, Sun Solaris, Mac OS X.

#### **ACCOMPLISHMENTS**

- ▶ Developed an image processing software-ReadAllOver that produces quality and compressible half-toning images. www.seeandbelieve.com (C/C++/Python/Matlab).
- ▶ Designed rate distortion experiments and implemented Signal Noise Ratio and Structure Similarity Index Method measurements to demonstrate the quality of ReadAllOver digital images is competitive compare to other existing image file format (Matlab).
- ▶ Developed of a 3D-visualization system that effectively displays software metrics in order to increase the understandability and maintainability of hierarchal software systems (Java/Java3D/XML).
- ▶ Designed and developed an online flipping book component for marketing RAO image processing software product (Flash/Flex).
- ▶ Designed and developed an online recruitment and orientation showcase for Texas State University Computer Science Department (Flash/Action Script 2.0).
- ► Implemented a UNIX based network application incorporating inter-machine communications over TCP/IP sockets and running on multiple networked Sun-Solaris machines (C/C++).
- ▶ Wrote and presented training seminars for C++ programming and effective debugging techniques in the windows environment (C/C++).

#### **EDUCATION**

**▶** Master of Science in Computer Science

Jan 2003 – May 2006

Texas State University - San Marcos, Texas (Over all GPA 3.2)

 This degree program is accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

► Bachelor of Science in Computer Science Bachelor of Science in Mathematics Aug 1999 – Dec 2002 Aug 1999 – Dec 2002

Texas State University - San Marcos, Texas (Over all GPA 3.47)

#### WORK EXPERIENCE

# **▶** Software Engineer

Sep 2007 - Present

Case Endeavours LLC. – Canyon Lake, Texas

- Responsible for the development of "proof of concept" software product for all patents under Case Endeavours LLC.
  - US Patent 6,002,493 Method for Reproducing an Image
  - US Patent 7,193,753 Reverse Diffusion Digital Halftone Quantization
  - US Patent 7,057,770 None-Of-The-Above Digital Halftone Compression and Decompression
  - US Patent 11,356,616 Method for Colorizing a Digital Halftone Programming Language used C/C++, Matlab, Python, Perl.
- Responsible for the use of software engineering principles for practical design of the company's software products.
- Responsible for the documentation of functional specifications and the design of test plans using ISO 9126 and IEEE 829 standard.
- Collaboration with outside software development professionals to achieve better efficiency and stability of existing software algorithms.
- Responsible for the implementation of rate distortion experiments Signal Noise Ratio and Structure Similarity Index Method measurements to demonstrate the competitiveness of ReadAllOver image file format with other existing image file formats
  - Programming Language used Matlab.
- Responsible for interaction with computer display hardware vendors seeking to implement software products.
- Responsible for the company's internet presence, including website design and marketing activities. www.seeandbelieve.com
   Web Programming Language used – HTML/XHTML, Flash/Flex, Action Script

# **▶** Web Master / IT Administrator

Aug 2006 – Aug 2007

Spectrum Creations - Boerne, Texas

- o Configured and maintained domain and web servers for Spectrum Creations.
- Designed and implemented interactive and dynamic company web pages http://www.tejaslighting.com
  - http://www.tenthavenuelighting.com
  - Tools used Flash, Action Script, PHP, ASP, DHTML, Photopshop, Fireworks.
- Organized Spectrum Creations web team to ensure websites provide up-to-date information for customers.
- o Implemented and executed advertising plans to increase sales through website.
- o Assisted in the data migration from MAS200 to MAS500 ERP business system.
- o Maintained and supported MAS500 ERP business system for Spectrum Creations.
- System administration including install, configure, repair and update software and hardware for all departments of Spectrum Creations.
- Implemented procedures and order of operations which help to improve company digital media infrastructure and setup a more automated work environment to increase the productivity and efficiency of employees.
- Generated reports which help to provide various levels of sales forecast, product inventories level and purchasing information.
  - Tools used Crystal Report.

#### **WORK EXPERIENCE (cont.)**

#### **▶** IT Administrator / Graduate Assistant

Jan 2003 - May 2006

Texas State University - San Marcos, Computer Science Department, Texas

- Configured and maintained computer labs and networks with Windows and Linux operating systems.
- Designed and implemented a department CD and webpage for the Computer Science Department to advertise their program and increase the student enrollment. http://www.cs.txstate.edu/showcase/cs.swf
   Tools used - Flash, Action Script
- o Debugged a variety of C/C++, Java and Assembly code.
- Diagnosed and repaired malfunction systems and hardware.
- Trained other lab workers on special projects like backup and restoration of operating system images on all lab machines.
   Tools used - Symantec Ghost.
- Monitored computer labs and provided technical assistance on both systems and software to faculty, staff, and students.
- o Assisted students in undergraduate CS classes with their projects.
- Wrote tutorials for the usage of various software and held tutorial sections to instruct students how to use them.

# **▶** Student Learning Assistance Center Counselor

Feb 2001 – Aug 2004

Texas State University - San Marcos, Texas

- o Computer counseling: Data Structures, C/C++, Assembly Language.
- Math counseling: Calculus, Applied Calculus, Abstract Algebra, Linear Algebra,
  Discrete Mathematics, Topology, Differential Equations, Probability and Statistics.
- Physics counseling: Mechanics and Heat, Electricity and Magnetism, Waves and Optics.

## **▶** Mathematics Undergraduate Assistant

Sep 2000 – Dec 2002

Texas State University - San Marcos, Texas

- o Taught and instructed Pre-Calculus classes.
- Graded assignments and tests for Calculus, Business Calculus, and Discrete Mathematics classes.

## **SPECIAL PROJECTS**

## **▶** Software Engineering / Visualization

- Thesis Researched the performance of existing visualization tools and developed a 3D-visualization system that effectively displays software metrics that improve the understandability and maintainability of large component base software systems using Java/Java3D and XML (8/2005 5/2006).
- Thesis Constructed hypothesis-test experiments and by using the ANOVA statistical method to demonstrate the effectiveness of different visualization systems (8/2005 – 5/2006).
- Organized a team of software engineering students to design functional specification documentations and test plans for an online retail business software solution (1/2004 5/2004).

#### **▶** Artificial Intelligence

- Designed, implemented, and documented a research solution to the Traveling Sales Person problem using the Heuristic Search algorithm A\* in C/C++, utilized OO design patterns (8/2003 12/2003).
- o Designed and developed the AI and game engine for an implementation of the game of Tic-Tac-Toe using an adversarial search algorithm (Min Max with alpha beta pruning) in C/C++ (8/2003 12/2003).

## **SPECIAL PROJECTS (cont.)**

## **▶** Web Development

- $_{\odot}$  Designed and developed an online flipping book component for marketing RAO image processing software product (1/2008 2/2008).
  - http://www.seeandbelieve.com
- Designed and developed an online recruitment and orientation showcase for Texas State University Computer Science Department (4/2005 – 8/2005).
   http://www.cs.txstate.edu/showcase/cs.swf
- Designed and developed a website for Civil Engineering company in New Braunfels, Texas (4/2008 5/2008).
  http://www.rcetx.com
- Designed and developed a website for a fantasy board game company in San Antonio, Texas (6/2005 8/2005).
  http://www.Seaborngames.com
- o Designed and developed a website for a wholesale lighting company in Boerne, Texas (10/2007 1/2008).
  - http://www.tenthavenuelighting.com
- Designed and maintained a website for a retail lighting company in Boerne, Texas (10/2007 08/2008).
  http://www.tejaslighting.com

# **▶** Networking

Implemented a UNIX based network application incorporating inter-machine communications over TCP/IP sockets and running on multiple networked Sun-Solaris machines (C/C++).

#### **HONORS**

- ▶ Dean's List (Fall 1999, Fall 2000, Spring 2001)
- ► Academic Excellence and Academic Scholarship (2002)
- ► Excellence in Service (Computer Science Department 2004, 2005)
- ▶ Phi Eta Sigma National Honor Society

## LANGUAGES SKILLS

- ► English
- ► Mandarin
- **▶** Cantonese
- **▶** Shanghainese