

Kui Gao

1. Contact Information

Kui Gao
Digital Media Lab
Institute of Computing Technology, Chinese Academy of Sciences
P.O.Box 2704#-31
Beijing 100080
Tel: 010-82649316, Mobile: 13683516381
Mail: kgao@ict.ac.cn

2. Education

Sep. 1999 - July 2004 (expected)
Institute of Computing Technology, Chinese Academy of Sciences
Ph.D. in Computer Application
Thesis: Real-time Scheduling in Scalable Streaming Media Server
Advisor: Prof. Wei Gao
Courses - Digital Video Processing and Communications; Advanced Operating System;
Computer Design and Test; Scalable Parallel Computing;

Sep.1996 - July 1999
Computer Center/Graduate School, Chinese Academy of Agriculture Sciences
M.S. in Management Science
Thesis: A Study of Agricultural Economic Data Service System Based on Software
Components and Web Technologies
Advisor: Prof. Shiqi Wang
Courses: Computer Network; Digital Image Processing; Knowledge Engineering;
Operational Research; System Engineering; Cybernetics; statistical Software SAS;

Sep.1992-July 1996
Department of Computer Sciences, Beijing University of Chemical Technology
Bachelor in Computer Application
Courses: English; Advanced mathematics; Linear Algebra; Programming in Pascal; Discrete
Mathematics; General Physics; Digital Logic; Data Structure; Assembly Language;
principles of Computer; C Programming Language; Computer Operating System;
Principles of Database; Probability & Statistics; Methods of Calculation; Software
Engineering; Computer Interface and Communication; Analyzing and Designing of
Algorithm; Computer Graphics; Computer Architecture; Introduction to Artificial
Intelligence; Computer Network; Principles of Compiler; Computer Control Technology

3. Research Interests

multimedia compression and communication; computer and communication networks;
operating system; real-time system and real-time scheduling; streaming media

4. Professional Experience

Feb. 2001- Research Assistant

Digital Media Lab, Institute of Computing Technology, Chinese Academy of Sciences

Projects:

- a) Research on the Key technologies about interchanging and accessing mass streaming media data over broadband network - (the National High Technology Development 863 Program of China)

- b) Integration of 4C based Interactive Multimedia System over Broadband Network - (the Knowledge Innovation Program of Chinese Academy of Sciences)

- c) Research on Key Techniques for QoS Implementation in a High Performance Router Framework - (the National Natural Science Foundation of China)

- d) Encoding and Transmission of Stream Media Based on Model - (the National Fundamental Research and Development 973 Program of China)

- e) Coding, Transmission, Testing and Implementation of Digital Video and Audio - (the National High Technology Development 863 Program of China)

Sep. 1999 - Feb. 2001

Research Assistant

COMPUNICATE TECHNOLOGY INC.

Project:

- a) IP-based Video-on-Demand system
- b) Cable-based Video-on-Demand system

Sep.1996-July 1999

Research Assistant

Computer Center, Chinese Academy of Agriculture Sciences

Project:

- a) National Agricultural Economic Data Service System

5. Skills

Profound research and working experiences in multimedia standards: H.264, MPEG-4, FGS, AVS(Chinese Audio/Video Standard).

Strong experience in multimedia (video) streaming techniques and protocols, RTSP, RTP, RTCP.

Hands-on networking skills, familiar with TCP/IP, network socket programming.

Programming languages: C/C++, Unix Shell. Platforms: UNIX, Linux, Windows, DOS.

Simulator: network simulator(ns2), csim.

Real-time system and real-time scheduling algorithms

6. Awards and Honors

2001-2002 - Outstanding Ph.D. student Awards, Institute of Computing Technology, Chinese Academy of Sciences

1998 - Outstanding class leader Awards, Graduate School, Chinese Academy of

Agriculture Sciences

1992-1996 - Many times people scholarship, Beijing University of Chemical Technology

7. Publications

1. Kui Gao, Wen Gao, Simin He, Yuan Zhang, - On-line Smoothing for Scalable Media Stream Delivery, - SPIE/IS&T Visual Communications and Image Processing 2004, part of the IS&T/SPIE Symposium on Electronic Imaging 2004, 18-22 January 2004 in San Jose, CA USA. (accepted).
2. Kui Gao, Yuan Zhang, Simin He, Wen Gao, - Imprecise Computation Scheduling on Scalable Media Stream Delivery - Fourth International Conference on Information, Communications & Signal Processing Fourth IEEE Pacific-Rim Conference On Multimedia 15-18, December 2003, Singapore. (accepted).
3. Kui Gao, Yuan Zhang, Wen Gao, Simin He. - Real-time Scheduling Supporting VCR Functionality For Scalable Video Streaming, - The 14th IEEE 2003 International Symposium on Personal, Indoor and Mobile Radio Communications Proceedings. PIMRC2003, Beijing, China, Sep. 7-10,2003, pp 2711-2715.
4. Kui Gao, Wen Gao, Simin He, Yuan Zhang. - Real-time Scheduling and On-line Resource Allocation on Scalable Streaming Media Server, - SPIE Visual Communication and Image Processing 2003. VCIP 2003, University of Italian Switzerland (USI), Lugano, Switzerland, Jul.8-11,2003
5. Kui Gao, Wen Gao, Simin He, Peng Gao, Yuan Zhang. - Real-Time Scheduling on Scalable Media Stream Delivery, - The 2003 IEEE International Symposium on Circuits and Systems, ISCAS 2003, Bangkok, Thailand, May 25-28,2003, ppII/824-ppII/827