

Jeonghun Noh

475 Marion Ave Palo Alto CA 94301 • (650) 353-0062 • jhnoh@stanford.edu • <http://www.stanford.edu/~jhnoh>

EDUCATION **Stanford University**, Stanford, CA

Ph.D. in Electrical Engineering (expected graduation date: 6/10), GPA: 3.97/4.00

- Thesis Topic: Low-latency and Robust Peer-to-Peer Video Streaming
- Awards: *Best Student Paper Award* (first author), ACM Mobimedia, London, UK, 2009.
Best Presentation Award (presenter), IEEE CCNC, Las Vegas, USA, 2008.
Graduate Fellowship, The Korea Foundation for Advanced Studies, 2002 – 2007
- Publications: 16 conference papers and 6 US patents pending

Seoul National University, Seoul, Republic of Korea

M.S., Electrical Engineering and Computer Science, 2/99, GPA: 3.82/4.00

- Thesis Topic: Repetitive Sub-channel Multiplexing Scheme for Many-to-Many Multicast in ATM Network • Publication: 1 conference paper

B.S., Electrical Engineering and Computer Science, 2/97, graduated *Summa cum laude* in School of Engineering, GPA: 3.99/4.00

- Undergraduate Scholarship, Seoul National University, 1993 – 1996
- Fellowship, Oesu Korea-Japan Interchange Foundation, 1994

RELATED COURSEWORK Design & analysis of algorithms, Multimedia networking and communications, Machine learning, Information theory, Image communication, Convex optimization, Game theory, Computer architecture & organization, Computer Networks

PROFESSIONAL EXPERIENCE **Dyyno Inc.**, Palo Alto, CA, USA

Consultant 6/08~9/08

- Assisted system operations of P2P streaming services using Amazon EC2 cloud computing platform using shell programming (bash), EC2API, packaging software as Linux image
- Developed system monitoring system using Nagios with plug-in extension (in Python)
- Developed analysis tool for video session logs (Python + MySQL)
- Applied research results to the companys P2P solution (C++)
- Published one conference paper (among the 16 papers above)

Sharp Laboratories of America, Camas, WA, USA

Research Intern 6/06~9/07 (summers)

- Designed a live streaming and time-shifted streaming P2P system
- Designed a distributed search algorithm for P2P VoD systems
- Implemented the proposed system and algorithm (Java based simulator, PlanetSim) and analyzed the performance of the proposed system and algorithm (Matlab)
- Designed and developed a low latency initial join protocol for peer-to-peer video streaming systems (using ns-2, C++, Tcl/Tk)
- Published three conference papers (among the 16 papers above) and three US patents pending (among the 6 patents above)

RESEARCH EXPERIENCE **Stanford University**

Research Assistant 9/06~present

- Implement a video streaming peer-to-peer client for a mobile phone (Nokia N96, Symbian S60 v3) in collaboration with Deutsche Telekom. Design and implement distributed video transcoding (SPPM, ffmpeg, x.264)
- Collaborated on P2P interactive region-of-interest (RoI) streaming (ns-2)

- Designed time-shifted streaming in peer-to-peer (P2P) networks (SPPM, ns-2)
- Optimized the performance of P2P overlays (SPPM, ns-2)
- Implemented a multi-threaded application, Stanford Peer-to-Peer Multicast system (SPPM) (C++, Linux/Mac OS X/Windows)
- Worked on video- and network-aware P2P live streaming system (SPPM, ns-2)

Seoul National University

Research Assistant 3/97~6/97, 9/98~12/98

- Developed video applications using adaptive real-time services in ATM Networks
- Verified the proposed system by using network simulator tools (ns-1.4)
- Developed new higher layer multicast protocol in ATM Networks
- Analyzed Internet multicast protocols

Teaching Assistant 9/97~12/97, 3/98~6/98

- Taught courses on digital filter design (graduate level) and introduction to science and technology (undergraduate level)

SERVICES

Academic service

Peer reviewer 1/07~present

- ACM Multimedia
- IEEE Communications Magazine
- IEEE Transaction on Multimedia
- Elsevier Computers and Electrical Engineering
- Elsevier Journal of Visual Communication and Image Representation

IT service

Administrator, IVMS group at Stanford University 3/06~present

- Maintain the group cluster consisting of 9 Linux machines (Fedora Core)
- Maintain the group calendar and web server

Community service

Volunteer, FIFA 2002 World Cup Korea/Japan 5/02~6/02

- Supported preparation of material in English for international media

Military service

Sergeant, Republic of Korea Army 7/99~9/01

- Developed/maintained system for detecting underground tunnels inside DMZ
- Published two Korean Army Networks & Communications journal papers

TECHNICAL SKILLS

Extensive software experiences in networking and video streaming/compression

Programming: C/C++, Python, Java(basic), Perl, Tcl/Tk, MySQL, Bash, network socket programming (TCP/IP, UDP/IP), HTML, VHDL, Matlab

Working platforms: Linux, Microsoft Windows, Mac OS X, Symbian S60

Applications/API: Microsoft Office, Adobe Photoshop, PlanetLab, EmuLab, MediaWiki, L^AT_EX, Amazon EC2 (cloud API)

Open Sources: ffmpeg, GPAC, x264, AiSee, ns-2(network simulator), nagios(remote system monitor), wireShark(network traffic analyzer, e.g. tcpdump)

Languages : English (fluent), Korean (mothertongue), Japanese (low intermediate), German (basic knowledge), Mandarine (basic knowledge)