# Eymen Kurdoglu

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#### DESCRIPTION

Multimedia research engineer with 8 years of progressive research and development experience.

SKILLS

- C/C++, MATLAB, Python, Bash; libay, libx264; event-driven programming, Linux
- Video encoding/decoding, computer networks, probabilistic analysis, mathematical optimization, machine learning, time-series analysis
- French (beginner), German (beginner), Turkish (native)

#### RESEARCH

# Real-time Video Communications

- "Perceptual Quality Maximization for Video Calls with Packet Losses by Optimizing FEC, Frame Rate and Quantization", (submitted to IEEE TMM) E. Kurdoglu, Y. Liu, Y. Wang
- "Real-time Bandwidth Prediction and Rate Estimation for Video Calls over Cellular Networks", E. Kurdoglu, Y. Liu, Y. Wang, Y. Shi, C. Gu, J. Lyu, ACM MMSys, 2016
- "Dealing with User Heterogeneity in P2P Multi-party Video Conferencing: Layered Distribution Versus Partitioned Simulcast", E. Kurdoglu, Y. Liu, Y. Wang, IEEE TMM, vol. 18, no. 1, 2016
- "Dealing with User Heterogeneity in P2P Multiparty Video Conferencing: Layered Coding Versus Receiver Partitioning", E. Kurdoglu, Y. Liu, Y. Wang, Communication and Networking Techniques for Contemporary Video Workshop at INFOCOM, 2014

# Bitrate Adaptation for Live 360-Video Streaming

- "View Direction and Bandwidth Adaptive 360 Degree Video Streaming Using Two-Tier System", F. Duanmu, E. Kurdoglu, Y. Liu, Y. Wang, ISCAS, 2017
- "Prioritized Buffer Control in Two-Tier 360 Video Streaming", F. Duanmu, E. Kurdoglu, A. Hosseini, Y. Liu and Y. Wang, VR/AR Network Workshop at SIGCOMM, 2017

# Video Streaming over Peer-to-Peer Networks

- "Adaptive Prioritized Random Linear Coding and Scheduling for Layered Data Delivery from Multiple Servers", N. Thomos, E. Kurdoglu, P. Frossard, M. van der Schaar, IEEE TMM, vol. 17, no. 6, 2015
- "Scalable Video Dissemination with Prioritized Network Coding", E. Kurdoglu, N. Thomos, P. Frossard, Streaming and Media Communication Workshop at ICME, 2011
- "Network Coding Node Selection Game in Collaborative Streaming Systems", N. Thomos, H. Park, E. Kurdoglu, P. Frossard, ICASSP, 2010

#### EDUCATION

#### NYU Tandon School of Engineering / Ph.D., Electrical Engineering

• Advisors: Prof. Yao Wang, Prof. Yong Liu

Jan. 2012 - May 2017

# École Polytechnique Fédérale de Lausanne (EPFL) / M.Sc., Communication Sciences

• Advisors: Prof. Pascal Frossard, Dr. Nikolaos Thomos

Sep. 2008 - June 2010

#### Middle East Technical University (METU) / B.Sc., Electrical and Electronics Engineering

• Double major: B.Sc., Department of Physics

## WORK Experience

#### **NEC Labs America, Inc.** / Internship, Optical Networking Group

• Supervisor: Dr. Dayou Qian

June 2013 - September 2013

• Worked on optical multicasting for software-defined networking.

## Teaching

TA for "Data Structures and Algorithms", "Internet Architecture and Protocols", "Communication Networks: Design and Algorithms", "Information Theory and Coding"