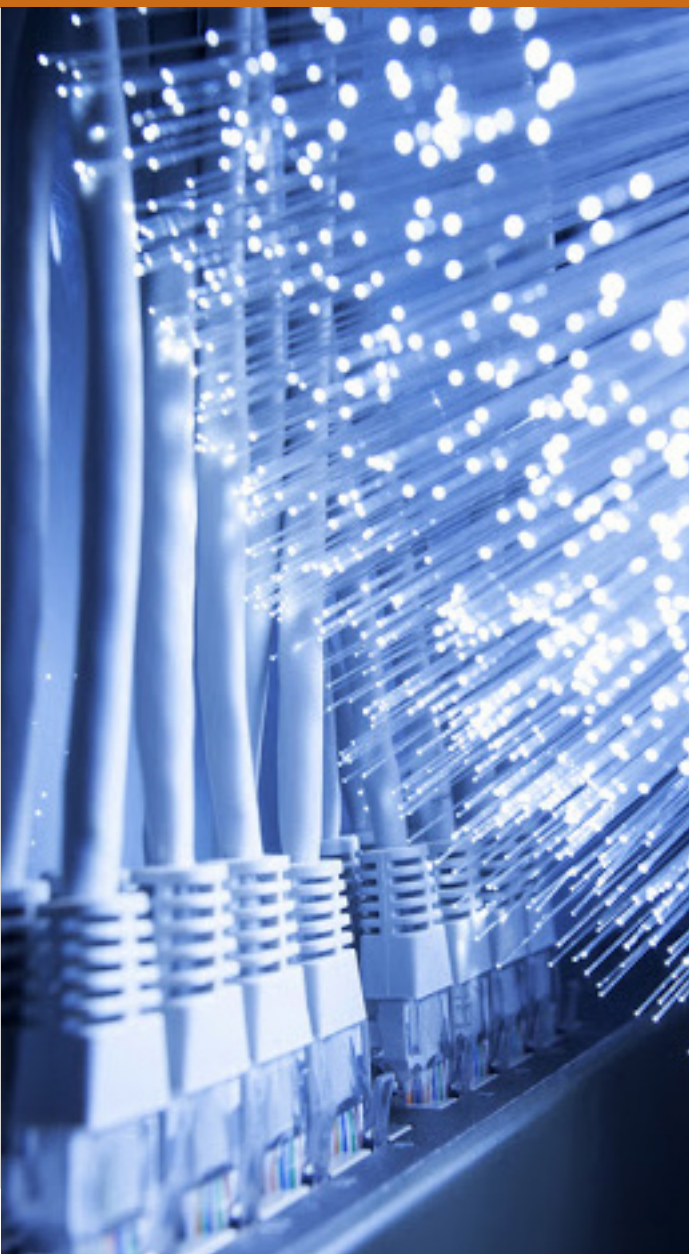# MITCSAIL

NETWORKS & MOBILE SYSTEMS

The Networks and Mobile Systems research group has conducted research in many areas of networking since 1998, including wireless networks, internet architecture, and network security.

Principal Investigators:

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Location:
Networks and Mobile Systems Group is located in the Ray and Maria Stata Center, Room 32-G920 at MIT.

Research Group Address:
Networks and Mobile Systems
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Research Vision
Our research aims to improve the performance, robustness, and ease of management of future networks and cloud computing systems. We currently focus on network protocols and algorithms for large-scale datacenters, programmable switching architectures, and learning-based networked systems. We also study performance modeling and analysis of computer systems and bridging theory and practice in computer system design.

Areas of Research
- Systems and Networking
- Security
- Computer Architecture
- Algorithms and Theory

Research Activities
- Boosting bitrate adaptation performance in video streaming using reinforcement learning and neural networks

- Developing aggregate congestion control for backlogged Internet traffic

- Improving GPS precision of road network extraction and inference, machine-assisted map editing, and analysis of driver behavior

In the News
- Researchers from Networks and Mobile Systems found a new way to allocate bandwidth in data center networks, resulting in faster webpage loads.

- The group's machine-learning system enables smoother video streaming that can adapt to different network conditions.

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Industry Applications
- Big Data
- Wireless Networks
- Transportation
- Internet of Things

"We believe that by communicating information between the different layers of wireless systems, we'll see tremendous gains in performance, reliability, and efficiency," -Prof. Hari Balakrishnan

Current People in Networks and Mobile Systems

Principal Investigators
Prof. Mohammad Alizadeh
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Graduate Students
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