

Ahmed Saeed (Ahmed Said Mohamed Tawfik Issa)

CONTACT INFORMATION      Office: 32 Vassar Street, 32-G930      +1 (678) 925-8050  
Mailing address: 384 Medford St # 1,      asaeed@csail.mit.edu  
Malden, MA (02148)      <https://saeed.github.io>

EDUCATION      **Massachusetts Institute of Technology**, Cambridge, Massachusetts, USA

Postdoctoral Associate      Sep. 2019 - now

- Working with Prof. Mohammad Alizadeh

**Georgia Institute of Technology**, Atlanta, Georgia, USA

PhD in Computer Science      August 2019

- *Dissertation*: Scalable Network Scheduling in Software
- *Advisors*: Prof. Mostafa Ammar and Prof. Ellen W. Zegura

**Georgia Institute of Technology**, Atlanta, Georgia, USA

Master's of Science in Computer Science      May 2018

- Specialization: Computing Systems

**Alexandria University**, Alexandria, Egypt

Bachelor's of Science, Computer and Systems Engineering      July 2010

- *Dissertation*: Towards Numerical Weather Prediction Acceleration Using GPUs

HONORS AND AWARDS

Google PhD Fellowship in Systems and Networking (2017-2019).

Third place in Student Research Competition (SRC) at MobiCom 2011.

Second place in undergraduate Student Research Competition (SRC) at MobiCom 2009.

Travel grants to attend: MobiSys'17 and PerCom'12.

CONFERENCE PUBLICATIONS

16. **Eiffel: Efficient and Flexible Software Packet Scheduling**  
USENIX NSDI 2019  
Ahmed Saeed, Yimeng Zhao, Nandita Dukkupati, Ellen Zegura, Mostafa Ammar, Khaled Harras, Amin Vahdat

15. **Unison: Enabling Content Provider/ISP Collaboration using a vSwitch Abstraction**  
IEEE ICNP 2019  
Yimeng Zhao, Ahmed Saeed, Mostafa Ammar, Ellen Zegura

14. **Characterizing the Effects of Rapid LTE Deployment: A Data Driven Analysis**  
IEEE/IFIP TMA 2019  
Kareem Abdullah, Noha Othman Korany, Ayman Khalafallah, Ahmed Saeed, Ayman Gaber

13. **If you can't beat them, augment them: Improving Local WiFi with Only Above-driver Changes**  
IEEE ICNP 2018  
Ahmed Saeed, Mostafa Ammar, Ellen Zegura, Khaled Harras

12. **Carousel: Scalable Traffic Shaping at End-Hosts**  
ACM SIGCOMM 2017  
Ahmed Saeed, Nandita Dukkupati, Vytautas Valancius, Vinh The Lam, Carlo Contavalli, Amin Vahdat

11. **Local and Low-cost White Space Detection**  
IEEE ICDCS 2017  
Ahmed Saeed, Khaled Harras, Ellen Zegura, Mostafa Ammar

10. **Argus: Realistic Target Coverage by Drones**  
ACM/IEEE IPSN 2017  
Ahmed Saeed, Ahmed Abdelkader, Mouhyemen Khan, Azin Neishaboori, Khaled Harras, Amr Mohamed

9. **The Inapproximability of Illuminating Polygons by  $\alpha$ -Floodlights**  
 CCCG 2015  
 Ahmed Abdelkader, *Ahmed Saeed*, Khaled Harras, Amr Mohamed
  8. **Up and Away: A Visually-Controlled Easy-to-Deploy Wireless UAV Cyber-Physical Testbed**  
 IEEE WiMob 2014  
*Ahmed Saeed*, Azin Neishaboori, Khaled Harras, Amr Mohamed
  7. **Low complexity target coverage heuristics using mobile cameras (*short paper*)**  
 IEEE MASS 2014  
 Azin Neishaboori, *Ahmed Saeed*, Khaled Harras, Amr Mohamed
  6. **On Target Coverage in Mobile Visual Sensor Networks**  
 ACM MOBIWAC 2014  
 Azin Neishaboori, *Ahmed Saeed*, Khaled Harras, Amr Mohamed
  5. **Location-Aware Probabilistic Route Discovery for Cognitive Radio Networks**  
 IEEE WCNC 2014  
 Ahmed Elbagori, *Ahmed Saeed*, Moustafa Youssef
  4. **A Low-Cost Large-Scale Framework for Cognitive Radio Routing Protocols Testing**  
 IEEE ICC 2013  
*Ahmed Saeed*, Mohamed Ibrahim, Khaled Harras, Moustafa Youssef
  3. **Unconventional TV Detection using Mobile Devices**  
 IARIA UBICOMM 2013  
 Mohamed Ibrahim, *Ahmed Saeed*, Moustafa Youssef, Khaled Harras
  2. **Robust WLAN Device-free Passive Motion Detection**  
 IEEE WCNC 2012  
 Ahmed E. Kosba, *Ahmed Saeed*, Moustafa Youssef,
  1. **RASID: A Robust WLAN Device-free Passive Motion Detection System**  
 IEEE PerCom 2012  
 Ahmed E. Kosba, *Ahmed Saeed*, Moustafa Youssef,
- JOURNAL PUBLICATIONS
4. **On Realistic Target Coverage by Autonomous Drones**  
 ACM Transactions on Sensor Networks 2019  
*Ahmed Saeed*, Ahmed Abdelkader, Mouhyemen Khan, Azin Neishaboori, Khaled Harras, Amr Mohamed
  3. **Toward Dynamic Real-time Geo-location Databases for TV white Spaces**  
 IEEE Network 2015  
*Ahmed Saeed*, Mohamed Ibrahim, Khaled Harras, Moustafa Youssef
  2. **Ichnaea: A Low-overhead Robust WLAN Device-free Passive Localization System**  
 IEEE Journal of Selected Topics in Signal Processing 2014  
*Ahmed Saeed*, Ahmed E. Kosba, Moustafa Youssef
  1. **Nuzzer: A Large-Scale Device-Free Passive Localization System for Wireless Environments**  
 IEEE Transactions on Mobile Computing 2013  
 Moustafa Seifeldin, *Ahmed Saeed*, Ahmed E. Kosba, Moustafa Youssef, Amr El-Keyi
- WORKSHOP PUBLICATIONS
3. **Vision: The Case for Symbiosis in the Internet of Things**  
 ACM MCS 2015 in conjunction with ACM MobiCom  
*Ahmed Saeed*, Mostafa Ammar, Khaled Harras, Ellen Zegura
  2. **Towards a Characterization of White Spaces Databases Errors: An Empirical Study**  
 ACM WiTECH 2014 in conjunction with ACM MobiCom  
*Ahmed Saeed*, Khaled Harras, Moustafa Youssef
  1. **Target Coverage Heuristics Using Mobile Cameras**  
 Robotic Sensor Networks 2014 part of Cyber-Physical Systems Week  
 Azin Neishaboori, *Ahmed Saeed*, Amr Mohamed, Khaled Harras

REFEREED  
POSTERS

4. **Enabling Large Scale Flexible Deployment of Cognitive Radio Routing Protocols**  
ACM WiNTECH 2012 in conjunction with ACM MobiCom  
*Ahmed Saeed*, Mohamed Ibrahim Khaled Harras, Moustafa Youssef
3. **A Robust Technique for WLAN Device-free Passive Motion Detection**  
ACM MobiCom 2011  
Ahmed E. Kosba, *Ahmed Saeed*, Moustafa Youssef
2. **Quantifying the Impact of GPU Specific Optimizations: An Experimental Study on a Weather Forecasting Application**  
ACM PACT 2010  
*Ahmed Saeed*, Emad Elwany, Emad Tawadros, Kareem Abdelsalam, Pakinam Yousry, Samia Hafez
1. **DNIS: A Middleware for Dynamic Multiple Network Interface Scheduling**  
ACM MobiCom 2009  
*Ahmed Saeed*, Karim Habak, Mahmoud Fouad, Moustafa Youssef

RESEARCH  
DEMOS

1. **DNIS: Dynamic Multiple Network Interface Scheduler**  
ACM MobiCom 2009  
*Ahmed Saeed*, Karim Habak, Mahmoud Fouad, Moustafa Youssef

PATENTS

- Patent 9800946, “Dynamic real-time TV white space awareness”, Khaled Harras, Moustafa Amin Youssef, Mohammed Ibrahim, *Ahmed Issa*, Granted Oct. 2017.
- US Patent Application No. 15/411,341, “Device And Method For Scalable Traffic Shaping With A Time-Indexed Data Structure”, Carlo Contavalli, Nandita Dukkhipati, *Ahmed Issa*, Vytautas Valancius, filed Jan. 2017.
- US Patent Application No. 15/411,335, “Device And Method For Scalable Traffic Shaping At A Receiver With A Time-Indexed Data Structure”, Carlo Contavalli, Nandita Dukkhipati, *Ahmed Issa*, Vytautas Valancius, filed Jan. 2017.

PRACTICAL  
EXPERIENCE

- College of Computing, Georgia Institute of Technology**, Atlanta, GA, USA.  
*Research Assistant* **August 2014 - Present**
- Google Inc.**, Sunnyvale and Mountain View, CA, USA.  
*Student Researcher* **Aug. 2018 - Dec. 2018**  
*Software Engineering Intern* **May 2018 - Aug. 2018**  
*Software Engineering Intern* **May 2016 - Jan. 2017**  
*Software Engineering Intern* **May 2015 - Aug. 2015**
- Carnegie Mellon University Qatar** and **Qatar University**, Doha, Qatar.  
*Research Fellow* **Nov. 2013 - July 2014**
- Egypt-Japan University for Science and Technology**, Alexandria, Egypt  
*Research Assistant* **July 2010 - Aug. 2013**
- Nile University**, Cairo, Egypt  
*Research Assistant Intern* **July 2009 - Aug. 2009**
- eSpace Technologies**, Alexandria, Egypt  
*Software Engineering Intern* **July 2008 - Feb. 2009**

TEACHING  
EXPERIENCE

**Georgia Institute of Technology,**

*Guest Lecturer on Congestion Control in Datacenters*  
Advanced Computer Networks (CS 6250)

**Spring 2017, Fall 2017**

*Teaching Assistant*  
Advanced Computer Networks (CS 6250)  
Introduction to Computer Networks (CS 8803)

**Fall 2015, Spring 2017**

**Alexandria University, Alexandria, Egypt**

*Teaching Assistant/Demonstrator*  
Introduction to Computers and Programming  
Programming in C  
Systems Programming

**Fall 2010**

TECHNICAL  
SKILLS

Programming:

- C/C++, Python, Go, Java, Ruby, CUDA, TCL/OTCL, Assembler, FORTRAN, VHDL, Matlab, Shell, JavaScript, GNU make, SQL.

Libraries and frameworks:

- Linux Networking Stack (TCP/IP, QDisc, and wireless), Docker Containers, Kubernetes, AR Drone SDK, GNU Radio, Click Modular Router, Windows Win32 Networking API (Layered Service Provider), MPI, OpenMP, ns2, GTK+, WPF, SWT, SWING.

ACTIVITIES AND  
PROFESSIONAL  
SERVICES

- Reviewer: IEEE JSAC, IEEE Computer, IEEE Micro, IEEE TVT, Elsevier COMNET, Elsevier Ad Hoc Networks, Elsevier Pervasive and Mobile Computing, and IEEE VTC'15.
- Vice President of Graduate Student Council for College of Computing at Georgia Tech (2015-2016).
- Senator at Graduate Student Senate of the Graduate Student Government Association (2015-2016).
- Software Freedom Day @ Alexandria University 2009 Team Leader.
- Campus Ambassador of *Sun Microsystems* in Alexandria University (2008-2009).
- Class Representative of Computer Science Class 2010, Alexandria University (2006-2007).