Ahmed Saeed (Ahmed Said Mohamed Tawfik Issa)

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EDUCATION

Georgia Institute of Technology, Atlanta, Georgia, USA

PhD in Computer Science

August 2014 - Present

• 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

• Thesis title: 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

14. Eiffel: Efficient and Flexible Software Packet Scheduling

USENIX NSDI 2019

<u>Ahmed Saeed</u>, Yimeng Zhao, Nandita Dukkipati, Ellen Zegura, Mostafa Ammar, Khaled Harras, Amin Vahdat

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 Dukkipati, 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 α -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, <u>Ahmed Saeed</u>, 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 (accepted)

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

<u>Ahmed Saeed</u>, 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 WiNTECH 2014 in conjunction with ACM MobiCom

<u>Ahmed Saeed</u>, Khaled Harras, Moustafa Youssef

1. Target Coverage Heuristics Using Mobile Cameras

Robotic Sensor Networks 2014 part of Cyber-Physical Systems Week

Azin Neishaboori, <u>Ahmed Saeed</u>, 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 Dukkipati, *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 Dukkipati, <u>Ahmed Issa</u>, 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 August 2018 - December 2018

Software Engineering Intern
May 2018 - August 2018
Software Engineering Intern
May 2016 - January 2017

Software Engineering Intern May 2015 - August 2015

Carnegie Mellon University Qatar and Qatar University, Doha, Qatar.

Research Fellow November 2013 - July 2014

Egypt-Japan University for Science and Technology, Alexandria, Egypt

Research Assistant July 2010 - August 2013

Nile University, Cairo, Egypt

Research Assistant Intern

July 2009 - August 2009

eSpace Technologies, Alexandria, Egypt

Software Engineering Intern

July 2008 - February 2009

TEACHING EXPERIENCE

Georgia Institute of Technology,

Guest Lecturer on Congestion Control in Datacenters Spring 2017, Fall 2017

Advanced Computer Networks (CS 6250)

Teaching Assistant Fall 2015, Spring 2017

Advanced Computer Networks (CS 6250) Introduction to Computer Networks (CS 8803)

Alexandria University, Alexandria, Egypt

Teaching Assistant/Demonstrator Fall 2010

Introduction to Computers and Programming

Programming in C Systems Programming

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).