

## Ahmed Saeed (a.k.a. Ahmed Said Mohamed Tawfik Issa)

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CONTACT INFORMATION	KACB 3338, 266 Ferst Dr NW Atlanta, GA 30332	asaeed@cc.gatech.edu <a href="https://saeed.github.io">https://saeed.github.io</a>
RESEARCH INTERESTS	Theory, design, and implementation of scalable <b>computer networks</b> and <b>computer systems</b> , including resource scheduling, congestion control, wireless networks, and cyber-physical systems.	
EDUCATION	<b>Georgia Institute of Technology</b> , Atlanta, Georgia, USA PhD in Computer Science August 2019	
	<b>Georgia Institute of Technology</b> , Atlanta, Georgia, USA M.Sc. in Computer Science May 2018	
	<b>Alexandria University</b> , Alexandria, Egypt Bachelor's of Science, Computer and Systems Engineering July 2010	
EMPLOYMENT	<b>Georgia Institute of Technology</b> , Atlanta, Georgia, USA <i>Assistant Professor</i> Starting Aug. 2021	
	<b>Massachusetts Institute of Technology</b> , Cambridge, Massachusetts, USA <i>Postdoctoral Associate</i> Sep. 2019 - Jul. 2021	
	<b>Google Inc.</b> , Sunnyvale and Mountain View, CA, USA. <i>Student Researcher</i> Aug. 2018 - Dec. 2018	
	<i>Software Engineering Intern</i> May 2018 - Aug. 2018	
	<i>Software Engineering Intern</i> May 2016 - Jan. 2017	
	<i>Software Engineering Intern</i> May 2015 - Aug. 2015	
	<b>Carnegie Mellon University Qatar</b> and <b>Qatar University</b> , Doha, Qatar. <i>Research Fellow</i> Nov. 2013 - July 2014	
	<b>Egypt-Japan University for Science and Technology</b> , Alexandria, Egypt <i>Research Assistant</i> July 2010 - Aug. 2013	
	<b>Nile University</b> , Cairo, Egypt <i>Undergraduate Research Assistant</i> July 2009 - Aug. 2009	
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.	
CONFERENCE PUBLICATIONS	<ol style="list-style-type: none"><li><b>Toward Formally Verifying Congestion Control Behavior</b> ACM SIGCOMM 2021 Venkat Arun, Mina Tahmasbi Arashloo, Ahmed Saeed, Mohammad Alizadeh, Hari Balakrishnan</li><li><b>Throughput-Fairness Tradeoffs in Mobility Platforms</b> ACM MobiSys 2021 Arjun Balasingam, Karthik Gopalakrishnan, Radhika Mittal, Venkat Arun, Ahmed Saeed, Mohammad Alizadeh, Hamsa Balakrishnan, Hari Balakrishnan</li><li><b>Scouting the Path to a Million-Client Server</b> PAM 2021 Yimeng Zhao, Ahmed Saeed, Ellen Zegura, Mostafa Ammar</li></ol>	

4. **Annulus: A Dual Congestion Control Loop for Datacenter and WAN Traffic Aggregates**  
ACM SIGCOMM 2020  
Ahmed Saeed, Varun Gupta, Prateesh Goyal, Milad Sharif, Rong Pan, Mostafa Ammar, Ellen Zegura, Keon Jang, Mohammad Alizadeh, Abdul Kabbani, Amin Vahdat
5. **Overload Control for  $\mu$ s-scale RPCs with Breakwater**  
USENIX OSDI 2020  
Inho Cho, Ahmed Saeed, Joshua Fried, Seo Jin Park, Mohammad Alizadeh, Adam Belay
6. **Eiffel: Efficient and Flexible Software Packet Scheduling**  
USENIX NSDI 2019  
Ahmed Saeed, Yimeng Zhao, Nandita Dukkkipati, Ellen Zegura, Mostafa Ammar, Khaled Harras, Amin Vahdat
7. **zD: A Scalable Zero-Drop Network Stack at End Hosts**  
ACM CoNEXT2019  
Yimeng Zhao, Ahmed Saeed, Ellen Zegura, Mostafa Ammar
8. **Unison: Enabling Content Provider/ISP Collaboration using a vSwitch Abstraction**  
IEEE ICNP 2019  
Yimeng Zhao, Ahmed Saeed, Mostafa Ammar, Ellen Zegura
9. **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
10. **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
11. **Carousel: Scalable Traffic Shaping at End-Hosts**  
ACM SIGCOMM 2017  
Ahmed Saeed, Nandita Dukkkipati, Vytas Valancius, Vinh The Lam, Carlo Contavalli, Amin Vahdat
12. **Local and Low-cost White Space Detection**  
IEEE ICDCS 2017  
Ahmed Saeed, Khaled Harras, Ellen Zegura, Mostafa Ammar
13. **Argus: Realistic Target Coverage by Drones**  
ACM/IEEE IPSN 2017  
Ahmed Saeed, Ahmed Abdelkader, Mouhyemen Khan, Azin Neishaboori, Khaled Harras, Amr Mohamed  
– Full version published in ACM Transactions on Sensor Networks 2019
14. **The Inapproximability of Illuminating Polygons by  $\alpha$ -Floodlights**  
CCCG 2015  
Ahmed Abdelkader, Ahmed Saeed, Khaled Harras, Amr Mohamed
15. **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
16. **Low complexity target coverage heuristics using mobile cameras (*short paper*)**  
IEEE MASS 2014  
Azin Neishaboori, Ahmed Saeed, Khaled Harras, Amr Mohamed
17. **On Target Coverage in Mobile Visual Sensor Networks**  
ACM MOBIWAC 2014  
Azin Neishaboori, Ahmed Saeed, Khaled Harras, Amr Mohamed

18. **Location-Aware Probabilistic Route Discovery for Cognitive Radio Networks**  
IEEE WCNC 2014  
Ahmed Elbagori, Ahmed Saeed, Moustafa Youssef
19. **A Low-Cost Large-Scale Framework for Cognitive Radio Routing Protocols Testing**  
IEEE ICC 2013  
Ahmed Saeed, Mohamed Ibrahim, Khaled Harras, Moustafa Youssef
20. **RASID: A Robust WLAN Device-free Passive Motion Detection System**  
IEEE PerCom 2012  
Ahmed E. Kosba, Ahmed Saeed, Moustafa Youssef  
– Full version published in IEEE Journal of Selected Topics in Signal Processing 2014

#### JOURNAL PUBLICATIONS

1. **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
2. **Toward Dynamic Real-time Geo-location Databases for TV white Spaces**  
IEEE Network 2015  
Ahmed Saeed, Mohamed Ibrahim, Khaled Harras, Moustafa Youssef
3. **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
4. **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

1. **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  
Ahmed Saeed, Khaled Harras, Moustafa Youssef
3. **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 AND DEMOS

1. **A Robust Technique for WLAN Device-free Passive Motion Detection**  
ACM MobiCom 2011 (Poster)  
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 (Poster)  
Ahmed Saeed, Emad Elwany, Emad Tawadros, Kareem Abdelsalam, Pakinam Yousry, Samia Hafez
3. **DNIS: A Middleware for Dynamic Multiple Network Interface Scheduling**  
ACM MobiCom 2009 (Poster)  
Ahmed Saeed, Karim Habak, Mahmoud Fouad, Moustafa Youssef
4. **DNIS: Dynamic Multiple Network Interface Scheduler**  
ACM MobiCom 2009 (Demo)  
Ahmed Saeed, Karim Habak, Mahmoud Fouad, Moustafa Youssef

## PATENTS

1. US Patent 10,454,835  
“Device And Method For Scalable Traffic Shaping With A Time-Indexed Data Structure”  
Carlo Contavalli, Nandita Dukkupati, Ahmed Issa, Vytautas Valancius, Granted Oct. 2019.
2. US Patent 9,800,946  
“Dynamic real-time TV white space awareness”  
Khaled Harras, Moustafa Amin Youssef, Mohammed Ibrahim, Ahmed Issa, Granted Oct. 2017.

## SERVICE

**ANCS Program Committee** The 16th ACM/IEEE Symposium on Architectures for Networking and Communications Systems 2021

**Invited Reviewer** IEEE/ACM Transactions on Networking (ToN), IEEE Journal on Selected Areas in Communications (JSAC), IEEE Transactions on Vehicular Technology (TVT), IEEE Transactions on Mobile Computing (TMC), IEEE Computer, IEEE Networking Letters, ACM Transactions on Sensor Networks (TOSN), Elsevier Pervasive and Mobile Computing, Elsevier Ad Hoc Networks, Elsevier Computer Networks, IEEE VTC2015-Spring.

## Leadership roles

- 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).
- Team Leader of *the first* Software Freedom Day @ Alexandria University with 600+ attendees (2009).
- Class Representative of the Computer Science Class of 2010, Alexandria University (2006-2007).