

# Samer Al-khateeb

## Education

### Ph.D. in Computer and Information Sciences

Fall 2017

*University of Arkansas at Little Rock*

Little Rock, Arkansas

Concentration: Information Science

Dissertation Title: "Studying Online Deviant Groups (ODGs): A Socio-Technical Approach Leveraging Social Network Analysis (SNA) & Social Cyber Forensics (SCF) Techniques"

Dissertation Committee: Nitin Agarwal (Chair), Elizabeth Pierce, Mariofanna Milanova, Ningning Wu, and Serhan Dagtas

GPA: 4.0/4.0

### Master of Science in Applied Science

Summer 2015

*University of Arkansas at Little Rock*

Little Rock, Arkansas

Concentration: Information Science

Project Title: "Modeling Deviant Cyber Flash Mobs (DCFM) in Cyberspace"

Project Committee: Nitin Agarwal (Chair), Hayder Al-Shukri, Elizabeth Pierce, and Brian Berry

GPA: 4.0/4.0

### Bachelor of Science in Computer Science

Spring 2013

*University of Arkansas at Little Rock*

Little Rock, Arkansas

Major: Computer Science

Minor: Electronics & Computer Engineering Technology

GPA: 3.78/4.0

## Research Interest

- Analysis and Modeling of:
  - Deviant Behaviors on Social Media
  - Cyber Collective Actions
  - Mobs
  - Deviant Cyber Flash Mobs (DCFM)
  - Cyber Propaganda Campaigns
- Social Network Analysis (SNA)
- Social Cyber Forensics, techniques, methodologies, and tools
- Social Computing
- Social Media Mining
- Social Bots Behaviors, Evolution, and Detection
- Toxicity and Sentiments Analysis

## Academic Experience

### Assistant Professor of Computer Science

Fall 2018 - Current

*Department of Computer Science, Design and Journalism, Creighton University*

### Affiliate Graduate Faculty

Spring 2018- Current

*Department of Information Science, University of Arkansas at Little Rock*

## Postdoctoral Research Fellow

Department of Information Science, University of Arkansas at Little Rock

## Teaching Assistant

Department of Information Science, University of Arkansas at Little Rock

- System Analysis and Design (IFSC 3360) Fall 2017
- Information System Analysis (IFSC 7310) Spring 2016, 2017, 2018
- Social Computing (IFSC 4360/5360) Fall 2016, Spring 2018
- Social Media Mining and Analytics (IFSC 4399/5399) Fall 2015

## Lab Instructor

Department of Physics and Astronomy, University of Arkansas at Little Rock

- Physics for Scientists and Engineers II Laboratory (PHYS 2122) Summer 2014, Fall 2014, Spring 2015

## Tutor

Department of Physics and Astronomy, University of Arkansas at Little Rock

- Physics for Scientists and Engineers I (PHYS 2321) Fall 2012, Spring 2013
- Physics for Scientists and Engineers II (PHYS 2322) Fall 2012, Spring 2013

## Industrial Experience

### Computer Technician

08/2011-05/2014

Department of Applied Science, University of Arkansas at Little Rock

### Executive Resident

06/2013-08/2013

DSG Consulting Inc.

### Student Intern

08/2012-12/2012

University of Arkansas for Medical Science

### Research Manager

05/2012-08/2012

DSG Consulting Inc.

## Teaching

I taught the following courses at Creighton:

- CSC 121: Computers and Scientific Thinking (HTML, JS)
- CSC 221: Introduction to Programming (Python)
- CSC 445: Social Networks Analytics
- CSC 542: Database Design and Security (MySQL)
- CSC 550: Introduction to Artificial Intelligence (Python)
- CSC 551: Web Programming (HTML5, CSS3, JS, PHP, SQL)
- CSC 590 (ST): Social Media & Cyber Forensics Analytics

## Publications

### Forthcoming:

1. **Samer Al-khateeb**, Rolf T. Wigand, and Nitin Agarwal. "Misinformation Campaigns. Applying Motivated Reasoning and Information Manipulation Theory to Understand the Role and Impact of Social Media in the Digital Transformation". Book Chapter. **Accepted**. It will be published in (2022).

**Books:**

1. **Samer Al-khateeb** and Nitin Agarwal. *"Deviance in Social Media and Social Cyber Forensics: Uncovering Hidden Relations Using OSINF"*. Springer, Spring 2019.

**Book Chapters:**

1. Katrin Galeano, Rick Galeano, **Samer Al-khateeb**, and Nitin Agarwal. *"Chapter 2: Studying the Weaponization of Social Media: Case Studies of Anti-NATO Disinformation Campaigns"*. In: Tayebi M., Glässer U., Skillicorn D. (eds) *Open Source Intelligence and Cyber Crime. Lecture Notes in Social Networks*. Springer, Cham. August 01, 2020.
2. **Samer Al-khateeb** and Nitin Agarwal. *"Social Media and Security"*. In Schintler, Laurie A. and McNeely, Connie L., *"Encyclopedia of Big Data"* (ISBN: 978-3-319-32001-4). Springer International Publishing, July 2020.
3. Rick Galeano, Katrin Galeano, **Samer Al-khateeb**, Nitin Agarwal, James Turner. *"Botnet Evolution During Modern Day Large-Scale Combat Operations"*. In a seven-book set titled *"Large Scale Combat Operations"*, book titled *"Information Operations: Perceptions are Reality"*, Chapter 10. Col. Mark Vertuli (Ed.). Army University Press. October 2018.
4. **Samer Al-khateeb**, Muhammad Hussain, and Nitin Agarwal. *"Leveraging Social Network Analysis & Cyber Forensics Approaches to Study Cyber Propaganda Campaigns"*. In *"Social Network and Surveillance for Society"*, Chapter 2, pp. 19-42. T. Ozyer, S. Bakshi, and R. Alhajj (Eds.). *Lecture Notes in Social Networks*, Springer, 2018. DOI: 10.1007/978-3-319-78256-0, ISBN (Print): 978-3-319-78255-3, ISBN (Online): 978-3-319-78256-0.
5. **Samer Al-khateeb**, Muhammad Nihal Hussain, and Nitin Agarwal. *"Analyzing Deviant Socio-technical Behaviors using Social Network Analysis and Cyber Forensics-based Methodologies"*. In *"Big Data Analytics in Cybersecurity and IT Management"*, Chapter 12. O. Savas & J. Deng (Eds.), September 2017. ISBN: 978-1-4987-72129. New York, NY: CRC Press, Taylor & Francis.

**Journal Articles:**

1. **Samer Al-khateeb** and Nitin Agarwal. *"Flash mob: a multidisciplinary review."* *Social Network Analysis and Mining* 11.1 (2021): 1-18. (impact factor 1.61).
2. **Samer Al-khateeb** and Nitin Agarwal. *"Social Cyber Forensics: Leveraging Open Source Information and Social Network Analysis to Advance Cyber Security Informatics"*. *Journal of Computational and Mathematical Organization Theory (CMOT)*, July 19, 2019. (Impact Factor 1.558)
3. Esther Ledelle Mead, Muhammad Nihal Hussain, Mohammad Nooman, **Samer Al-khateeb**, and Nitin Agarwal. *"Voices from Venezuela: Examining blogs to study the socio-politico-economic crisis and consequent emigration"*. *IARIA International Journal on Advances in Internet Technology*, Vol. 11, No. 1-2, 2018. (Impact Factor 0.654)
4. Nitin Agarwal, **Samer Al-khateeb**, Rick Galeano, and Rebecca Goolsby. *"Examining The Use Of Botnets And Their Evolution In Propaganda Dissemination."* *Journal of Defence Strategic Communications*, Vol. 2. No. 2, pp. 87-112. 2017. (Impact Factor 0.81)
5. **Samer Al-khateeb**, Kevin J Conlan, Nitin Agarwal, Ibrahim Baggili, and Frank Breitingner. *"Exploring Deviant Hacker Networks (DHN) On Social Media Platforms"*. *Journal of Digital Forensics, Security and Law*, Vol. 11. No. 2, pp. 7-20. 2016.
  - Also presented and included in the proceedings of the 8<sup>th</sup> EAI International Conference on Digital Forensics & Cyber Crime (ICDF2C 2016), September 28-30, 2016, New York City, USA.
6. **Samer Al-khateeb** and Nitin Agarwal. *"Understanding Strategic Information Maneuvers in Network Media to Advance Cyber Operations: A Case Study Analyzing pro-Russian Separatists' Cyber Information Operations in Crimean Water Crisis"*. *Journal on Baltic Security*, Vol. 2, Issue 1, pp. 6-27, 2016.
  - Also presented and included in the proceedings of the 9<sup>th</sup> International Lesson Learned

*Conference (ILLC2015), June 1-4, 2015, Tartu, Estonia.*

7. **Samer Al-khateeb** and Nitin Agarwal. "Developing a Conceptual Framework For Modeling Deviant Cyber Flash Mob: A Socio-Computational Approach Leveraging Hypergraph Constructs". Journal of Digital Forensics, Security and Law, Vol. 9. No. 2, pp. 113-127. 2014.
  - Also included in the proceedings of the 6<sup>th</sup> International Conference on Digital Forensics & Cyber Crime, September 18-19 New Haven, United States.

### Conferences Proceedings:

1. **Samer Al-khateeb**, Madelyn Anderson, and Nitin Agarwal. "Studying the Role of Social Bots During Cyber Flash Mobs". International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction, and Behavior Representation in Modeling and Simulation (SBP-BRiMS 2021), July 06-09, 2021, Virtual. Conference Proceedings.
2. Mustafa Alassad, Billy Spann, **Samer Al-khateeb**, and Nitin Agarwal. "Using Computational Social Science Techniques to Identify Coordinated Cyber Threats to Smart City Networks". 1<sup>st</sup> Joint International Conference on Design and Construction of Smart City Components, December 17-19, 2019, Cairo, Egypt. (JIC Smart Cities 2019) pp 316-326. First Online: 24 January 2021.
3. Julia Thee, Izzat Alsmadi, and **Samer Al-Khateeb**. "Pro-ISIS Tweets Analysis Using Machine Learning Techniques". Workshop on Deviant Activities on Social Media, in conjunction with 2020 IEEE Conference on BigData (IEEE BigData 2020) December 10-13, 2020, Atlanta, GA, USA.
4. Thomas Marcoux, Nitin Agarwal, Obadimu Adewale, Muhammad Nihal Hussain, Katrin Kania Galeano, **Samer Al-khateeb**. "Understanding Information Operations using YouTubeTracker". IEEE/WIC/ACM International Conference on Web Intelligence (WI '19 Companion), October 14–17, 2019, Thessaloniki, Greece.
5. Adewale Obadimu, Esther Mead, **Samer Al-Khateeb**, and Nitin Agarwal. "A Comparative Analysis of Facebook and Twitter Bots". Southern Association for Information Systems (SAIS). SAIS 2019 Proceedings. 25. <https://aisel.aisnet.org/sais2019/25>
6. Muhammad Nihal Hussain, Kiran Kumar Bandeli, Serpil Tokdemir, **Samer Al-khateeb**, and Nitin Agarwal. "Understanding Digital Ethnography: Socio-computational Analysis of Trending YouTube Videos". The Eighth International Conference on Social Media Technologies, Communication, and Informatics (SOTICS 2018), October 14-18, 2018, Nice, France. **(Won Best Paper Award)**.
7. Muhammad Nihal Hussain, **Samer Al-khateeb**, Serpil Tokdemir, and Nitin Agarwal. "Analyzing Disinformation and Crowd Manipulation Tactics on YouTube". The 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), August 28-31, 2018, Barcelona, Spain.
8. Tuja Khaund, Kiran Kumar Bandeli, Muhammad Nihal Hussain, Adewale Obadimu, **Samer Al-khateeb**, and Nitin Agarwal. "Analyzing Social and Communication Network Structures of Social Bots and Humans". The 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), August 28-31, 2018, Barcelona, Spain.
9. Tuja Khaund, **Samer Al-Khateeb**, Serpil Tokdemir, and Nitin Agarwal. "Analyzing Social Bots and their Coordination during Natural Disasters". International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS 2018), July 10-13, 2018, Washington D.C., USA.
10. Muhammad Nihal Hussain, Kiran Kumar Bandeli, **Samer Al-khateeb**, and Nitin Agarwal. "Analyzing Shift in Narratives Regarding Migrants in Europe via Blogosphere". Proceedings of the International Workshop on Narrative Extraction from Texts (Text2Story 2018) co-located with the 40th European Conference on Information Retrieval (ECIR). Volume 2077, pp 33-40. Grenoble, France. March 26-29, 2018.
11. Esther Ledelle Mead, Muhammad Nihal Hussain, Mohammad Nooman, **Samer Al-khateeb**, and Nitin Agarwal. "Assessing Situation Awareness through Blogosphere: A Case Study on Venezuelan Socio-Political Crisis and the Migrant Influx". The Seventh International Conference on Social

Media Technologies, Communication, and Informatics (SOTICS 2017), October 8 - 12, 2017, Athens, Greece. **(Won Best Paper Award)**.

12. **Samer Al-khateeb**, Muhammad Nihal Hussain, and Nitin Agarwal. *"Social Cyber Forensics Approach to Study Twitter's and Blogs' Influence on Propaganda Campaigns"*. International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS 2017), July 5 - 8, 2017, Washington D.C., USA.
13. Muhammad Nihal Hussain, Adewale Obadimu, Kiran Kumar Bandeli, Mohammad Nooman, **Samer Al-khateeb**, and Nitin Agarwal. *"A Framework for Blog Data Collection: Challenges and Opportunities"*. The IARIA International Symposium on Designing, Validating, and Using Datasets (DATASETS 2017), June 25 - 29, 2017, Venice, Italy.
14. **Samer Al-khateeb** and Nitin Agarwal. *"The Rise & Fall of #NoBackDoor on Twitter: the Apple vs. FBI Case"*. In Proceedings of the International Symposium on Foundations of Open-Source Intelligence and Security Informatics (FOSINT-SI 2016) co-located with the 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2016), August 19-20, 2016, San Francisco, California, USA.
15. **Samer Al-khateeb** and Nitin Agarwal. *"Examining Botnet Behaviors for Propaganda Dissemination: A Case Study of ISIL's Beheading Videos-based Propaganda"*. In Proceedings of the Behavior Analysis, Modeling, and Steering (BEAMS 2015) co-located with the IEEE International Conference on Data Mining (ICDM 2015), November 14-17, 2015, Atlantic City, New Jersey, USA.
16. **Samer Al-khateeb**, Engin Mendi, and Coskun Bayrak. *"A Comparative Analysis of Digital Filtering for Seismic Signals from Adana, Van, and Bingol Earthquakes in Turkey"*. In Proceedings of the International Conference on Information Processing and Control Engineering (ICIPCE-2015), April 15-17, 2015, Bauman Moscow State Technical University, Russia.
17. **Samer Al-khateeb** and Nitin Agarwal. *"Analyzing Deviant Cyber Flash Mobs of ISIL on Twitter"*. In Proceedings of the International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (SBP15), March 31 April 3, 2015, UCDC Center, Washington DC, USA.
18. **Samer Al-khateeb** and Nitin Agarwal. *"Analyzing Flash Mobs in Cybernetic Space and the Imminent Security Threats: A Collective Action based Theoretical Perspective on Emerging Sociotechnical Behaviors"*. In Proceedings of the AAAI Spring Symposium 2015 on Socio-technical Behavior Mining: From Data to Decisions, AAAI Spring 2015 Symposium on Socio-Technical Behavior Mining, March 23-25, 2015, Palo Alto, California, USA.
19. **Samer Al-khateeb** and Nitin Agarwal. *"Modeling Flash Mobs in Cybernetic Space: Evaluating Threats from Emerging Socio-Technical Behaviors to Human Security"*. In Proceedings of the IEEE Joint Intelligence and Security Informatics Conference (JISIC 2014), September 24-26, 2014, Hague, Netherlands.

### Conferences, Posters, and Presentations:

1. **Samer Al-khateeb**. *"Designing and Implementing a Data Repository for Cyber Flash Mobs"* the St. Albert/University Day on April 20-22, 2021 (Poster).
2. Madelyn Anderson and **Samer Al-khateeb**. *"Designing and Implementing a Data Repository for Cyber Flash Mobs"* the 2021 CURAS Research and Scholarship Fair on Tuesday, March 2, 2021 (Poster).
3. **Samer Al-khateeb** and Nitin Agarwal. *"Socio-computational Approaches for Cyber Threat Analysis"*. INFORMS 2019 Annual Meeting. October 20-23, 2019, Seattle Washington, USA. (Presentation)
4. Tuja Khaund, Billy Spann, Richard Young, **Samer Al-khateeb**, and Nitin Agarwal. *"Blog Farm Detection Using Social Network Analysis and Social Cyber Forensics Informed Methodologies"*. International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS 2019), July 9-12, 2019, Washington D.C., USA. (Poster)
5. **Samer Al-khateeb**, Muhammad Nihal Hussain, and Nitin Agarwal. *"When Citizen Journalism Goes*

*Rogue: A Case Study of Anti-West Misinformation Campaigns During the 2014 Russian-Ukraine Conflict*". The 5<sup>th</sup> International Conference on Bridging Gaps: Where is the Critic in Television Journalism?, Centre for Media and Celebrity Studies (CMCS), CUNY School of Journalism, August 31 – September 1, 2017, New York City, USA. (Conference Presentation)

6. **Samer Al-khateeb**, Muhammad Nihal Hussain, and Nitin Agarwal. "*Leveraging Social Network Analysis & Cyber Forensics Approaches to Study Cyber Propaganda Campaigns*". The 1<sup>st</sup> North American Social Networks Conference of the International Network for Social Network Analysis (NASN 2017), July 26 - 30, Washington DC, USA. (Conference Presentation)
7. Kiran Kumar Bandeli, Muhammad Nihal Hussain, **Samer Al-khateeb**, and Nitin Agarwal. "*Towards Developing Methodology to Stem the Tide of Fake News*". International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS 2017) (Challenge Track), July 5 - 8, 2017, Washington D.C., USA. (Poster)
8. Muhammad Nihal Hussain, Kiran Bandeli, Mohammad Nooman, **Samer Al-khateeb**, and Nitin Agarwal. "*Analyzing the Voices during European Migrant Crisis in Blogosphere*". The 2<sup>nd</sup> International Workshop on Event Analytics using Social Media Data associated with the 11<sup>th</sup> International AAAI Conference on Web and Social Media (ICWSM 2017), May 15-18, 2017, Montreal, Canada. (Conference Presentation)
9. **Samer Al-khateeb**, Muhammad Nihal Hussain, and Nitin Agarwal. "*Exploring ISIL Cyber Network Activities: Evolution, Means, and Strategies*". In the 36<sup>th</sup> International Sunbelt Social Network Conference (Sunbelt XXXVI) organized by the International Network for Social Network Analysis (INSNA), April 5-10, 2016, Newport Beach, California. (Conference Presentation)

### Participation in Funded Projects

#### 1. **Designing and Implementing a Data Repository for Cyber Flash Mobs.**

The research project is funded by the Center for Undergraduate Research and Scholarship (CURAS) at Creighton University, Omaha NE.

Total award amount: \$10,000

Project Period: 05/01/2020 - 12/01/2020

My Role: Principal investigator (PI)

#### 2. **Socio-computational Predictive Methods to Detect and Mitigate Bot Activity in Novel Information Environments.**

The research project is funded by the DARPA Small Business Innovation Research (SBIR)

Award number (Phase-2 grant): W31P4Q-17-C-0059.

Total award amount: \$1,000,000.

Project Period: 09/01/2016 - 08/31/2019.

Collaborators: Intelligent Automation, Inc.

My role in this project:

I was hired by this grant to do research on different topics such as the usage of botnets by deviant groups on social media and research on blogosphere data collection and analysis. This grant covered the travel costs of attending conferences to present the results of the research. I also attended all projects meetings and presented the results of the research to program managers.

#### 3. **Towards Predictive Modeling Deviant Cyber Flash Mobs: A Socio-Informatics Driven Hypergraph Framework.**

The project is funded by the U.S. Army Research Office (ARO) under Social and Cognitive Networks program within the Network Sciences division

Award number: W911NF-16-1-0189.

Program Officer: Dr. Edward Palazzolo

Total award amount: \$300,000.

Project Period: 06/01/2016 - 05/31/2019.

My role in this project:

I was hired by this grant to do research on Deviant Cyber Flash Mobs conducted by ISIL/ISIS/Daesh and operationalize a theoretical model on Twitter data. I presented the results of this research in three conferences of which their traveling cost was supported by this grant. I also helped in writing project progress reports, presented the results of the research to program managers, and attended all projects meetings.

4. **Developing Novel Socio-computational Methodologies to Analyze Multimedia-based Cyber Propaganda Campaigns.**

This project is funded by the U.S. Office of Naval Research (ONR) under Thrust Code 341

Award number: N00014-17-1-2605.

Program Officer: Dr. Rebecca Goolsby.

Total award amount: \$1,530,778.

Project Period: 06/01/2017 - 01/31/2019.

My role in this project:

I was hired by this grant with a group of students to study and assess the socio-political crisis and the migrant influx in Venezuela and Europe through the blogosphere. This project resulted in two conference papers of which their traveling cost was supported by this grant. I also attended all projects meetings.

5. **Analyzing Integrated Social Media-Facilitated Propaganda Campaigns using Social Network Analysis and Cyber Forensics.**

This project is funded by the U.S. Office of Naval Research (ONR) under Thrust Code 341

Award number: N00014-16-1-2412.

Program Officer: Dr. Rebecca Goolsby.

Total award amount: \$190,000.

Project Period: 05/01/2016 - 09/30/2018.

My role in this project:

I was hired by this grant to do research on the usage of social media by different hacker's groups. Then, I worked with a group of students on a project to assess the socio-political crisis and the migrant influx in Venezuela through the blogosphere. I presented two conference papers of which their traveling cost was supported by this grant. I also attended all projects meetings.

6. **MRI: Acquisition of Peta-Scale Data Storage System for Big Data Exploration in STEM Fields.**

The research project is funded in part by the U.S. National Science Foundation's (NSF) Advanced Cyber infrastructure (ACI) program

Award number: ACI-1429160.

Total award amount: \$291,908.

Project period: 09/01/2014 - 08/31/2018

My role in this project:

I was hired by this grant to do research on different topics such as the usage of botnet by deviant groups on social media, the case of Apple vs. FBI discussion on Twitter, and research on blogosphere data collection and analysis. This grant covered the travel costs of seven conferences papers. I also attended all projects meetings and presented the results of the research to program managers.

**7. Data-Intensive High-Density Computational Equipment for Research on Monitoring Cyber Warfare Tactics through Social Media.**

The project is funded by the U.S. Office of Naval Research (ONR) under Defense University Research Instrumentation Program (DURIP)

Award number: N00014-16-1-2016.

Total award amount: \$85,964.

Project Period: 11/15/2015 - 12/14/2016.

My role in this project:

I was hired by this grant to do research on the usage of social media by different hacker's groups. Then, I worked with a group of students on a project to assess the socio-political crisis and the migrant influx in Venezuela through the blogosphere. I presented two conference papers of which their traveling cost was supported by this grant. I also attended all projects meetings.

**8. Cyber-collective Movements: Novel Socio-computational Approaches in Studying the Blogosphere.**

The research project is funded in part by the U.S. National Science Foundation's (NSF) Social-Computational Systems (SoCS) Program and Human-Centered Computing (HCC) Program.

Award number: IIS-1110868 and IIS-1110649.

Total award amount: \$742,044.

Project Period: 09/01/2011 - 05/31/2016.

Collaborators: Rolf T. Wigand and Merlyna Lim.

My role in this project:

I was hired by this grant to do theoretical survey of different cyber collective actions/phenomenon's and develop theoretical models. I presented two conference papers of which their traveling cost was supported by this grant. I also helped in writing project progress reports, presented the results of the research to program managers, and attended all projects meetings.

**9. Predictive Modeling of Cyber Flash Mobs: Understanding Emerging Socio-Technical Behaviors for Conflict Monitoring.**

This project is funded by the U.S. Office of Naval Research (ONR) under Thrust Code 341.

Award number: N00014-14-1-0489.

Program Officer: Dr. Rebecca Goolsby.

Total award amount: \$160,000.

Project Period: 05/01/2014 - 09/30/2015.

My role in this project:

I was hired by this grant to do research on the usage of social media by different hacker's groups. Then, I worked with a group of students on a project to assess the socio-political crisis and the migrant influx in Venezuela through the blogosphere. I presented two conference papers of which their traveling cost was supported by this grant. I also attended all projects meetings.



**10. BlogTrackers: Analyzing Social Media for Cultural Modeling.**

The research project is funded by the U.S. Office of Naval Research (ONR)

Award number: N00014-10-1-0091.

Total award amount: \$334,791.

Project period: 05/01/2010 - 12/30/2013.

Collaborators: Huan Liu and Merlyna Lim.

My role in this project:

I was hired by this grant to do research on ISIL/ISIS/Daesh online behaviors, then I presented three papers of which their traveling cost was supported by this grant. I also helped in writing project progress reports, presented the results of the research to program managers, and attended all projects meetings.

**11. A Socio-computational Model for 'Social Bot' Detection: Understanding tactical and strategic information maneuvers through social media to advance cyber operations.**

The research project is funded by the U.S. Department of Navy's (DoN) Small Business Technology Transfer (STTR)

Award number (Phase-1 grant): N00014-15-P-1187

Total award amount: \$150,000.

Project Period: 08/01/2015 - 08/31/2016.

Collaborators: Intelligent Automation, Inc.

My role in this project:

I was hired by this grant to do research on the usage of social media by different hacker's groups. Then, I worked with a group of students on a project to assess the socio-political crisis and the migrant influx in Venezuela through the blogosphere. I presented two conference papers of which their traveling cost was supported by this grant. I also attended all projects meetings.

## Services

Service to the Profession:

- **Editorial Board Member**
  1. International Journal of Computer Science Research (Impact factor: still new).
- **Journal Reviewer**
  1. Information Processing and Management (Impact factor: 4.787).
  2. IEEE Internet Computing (Impact factor: 1.929).
  3. International Journal of Computer Science Research (Impact factor: still new).
  4. Computational and Mathematical Organization Theory (CMOT) (Impact factor: 1.558).
  5. IEEE Transactions on Computational Social Systems (Impact factor: 5.614).
  6. Springer Journal of Social Network Analysis and Mining (SNAM) (Impact factor: 1.61).
  7. ACM Journal of Data and Information Quality (JDIQ) (Impact factor: 2.13).
  8. Encyclopedia of Social Network Analysis and Mining (ESNAM) (Impact factor: n/a).
- **Conference Program Committee Member**
  1. *SBP-BRIMS 2021: International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation*
  2. *IEEE Big Data 2020: the 2020 IEEE International Conference on Big Data. I Co-Chair the Workshop on Deviant Activities on Social Media (DEVIANCE 2020)*

3. ICWSM 2020: the 14<sup>th</sup> International Conference on Web and Social Media
4. HICSS-54: the 54<sup>th</sup> Hawaii International Conference on System Sciences
5. SBP-BRiMS 2020: Social Computing, Behavioral Modeling, and Prediction.
6. SBP-BRiMS 2019: Social Computing, Behavioral Modeling, and Prediction.
7. IMMM 2019: International Conference on Advances in Information Mining and Management
8. HUSO 2019: The International Conference on Human and Social Analytics.
9. WSDM 2018: International Conference on Web Search and Data Mining.
10. ACIS 2018: The Australasian Conference on Information Systems.
11. SBP-BRiMS 2016: Social Computing, Behavioral Modeling, and Prediction.
12. SBP-BRiMS 2015: Social Computing, Behavioral Modeling, and Prediction.

- **Tutorials Presenter**

1. Nitin Agarwal and **Samer Al-khateeb**. A tutorial on “Social Cyber Forensics” for Center for Computational Analysis of Social and Organizational Systems (CASOS), Carnegie Mellon University, September 11, 2017.
2. Nitin Agarwal, **Samer Al-khateeb**, and Muhammad Nihal Hussain. A tutorial on “Social Cyber Forensics: Discovering Hidden Connections, Information Flows, And Information Actors In The Modern Information Environment” presented at the 2017 International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation. July 5-8, 2017, Lehman Auditorium, George Washington University, Washington DC, USA.
3. Nitin Agarwal, **Samer Al-khateeb**, and Muhammad Nihal Hussain. A tutorial on “Propaganda and Group Characterization” presented under RTG HFM-248 Human Networks Analysis at the NATO TIDE Sprint conference - Open Source Information (OSINF) track. October 24-28, 2016, Virginia Beach, USA.
4. Nitin Agarwal and **Samer Al-khateeb**. A tutorial on “Understanding Influence Operations of Daesh and Novorossiia through Blogs and Twitter” presented at the NATO TIDE Sprint 27 conference, April 11-15, 2016, Krakow, Poland.
5. Nitin Agarwal and **Samer Al-khateeb**. A tutorial on “Understanding Influence Operations of Daesh and Novorossiia through Blogs and Twitter” presented at the Dark Web Workshop, March 22-24, 2016, U.S. Naval Postgraduate School, Monterey Bay, California.

- **Invited Presentations**

1. **Samer Al-khateeb**. An invited talk "*Deviance in Social Media and Social Cyber Forensics*" presented at the Media Literacy and Information Concepts class (JRM 215). December 5, 2019.
2. **Samer Al-khateeb**. An invited talk "*The Power of Social Media Analytics*" presented at Creighton University Physics Colloquium. October 19, 2019.
3. **Samer Al-Khateeb**. An invited talk “The Power of Social Media Analytics” presented at Harding University. March 14, 2018. Searcy, AR, USA.
4. **Samer Al-khateeb**. A tutorial on "Gephi: For Network Data Analysis, Visualization, and Collection" presented for the IFSC 4360/5360 Social Computing at the University of Arkansas at Little Rock. October 12, 2016. Little Rock, AR, USA.
5. **Samer Al-khateeb**. A tutorial on “Network Overview Discovery and Exploration for Excel (NodeXL)” presented for the IFSC 4399/5399 Social Media Mining and Analytics Class at the University of Arkansas at Little Rock. September 28, 2016. Little Rock, AR, USA.
6. **Samer Al-khateeb**. A tutorial on "Social Cyber Forensics Analysis Using Maltego" presented for the IFSC 1105 FYE for IFSC Majors class at the University of Arkansas at Little Rock. September 20, 2016. Little Rock, AR, USA.
7. **Samer Al-khateeb**. A tutorial on "Gephi and Cytoscape: Network Data Visualization" presented for the IFSC 4399/5399 Social Media Mining and Analytics Class at the University of Arkansas at

Little Rock. October 1, 2015. Little Rock, AR, USA.

### **Other Services:**

- **Anonymous reviewer** September 27, 2019
  - Served as an anonymous reviewer of the Ph.D. dissertation titled "*On Meta-Networks, Deep Learning, Time and Jihadism*". Transcrime: Joint Research Centre on Transnational Crime. The International Ph.D in Criminology at Università Cattolica del Sacro Cuore of Milan, Italy.
- Served as a **Dissertation Committee Member** for the following students:
  - 1) **Billy Spann, Ph.D.,** Anticipated Graduation Spring 2022  
*The Department of Information Science at UA-Little Rock, Little Rock, AR*  
 Dissertation Title: "*Understanding Connective Action: A Socio-Technical Approach to Modeling Protesters Orchestration in Online Social networks*"
  - 2) **Thomas Marcoux, Ph.D.,** Anticipated Graduation Spring 2022  
*The Department of Information Science at UA-Little Rock, Little Rock, AR*  
 Dissertation Title: "*Identifying Multi-platform Online Misinformation Using Semantic Models*"
  - 3) **Maryam Maleki, Ph.D.,** Anticipated Graduation Spring 2022  
*The Department of Information Science at UA-Little Rock, Little Rock, AR*  
 Dissertation Title: "*Towards Epidemiological Modeling to Study the Propagation of Misinformation on Social Media*"
  - 4) **Mustafa Alassad, Ph.D.,** Anticipated Graduation Spring 2022  
*The Department of Information Science at UA-Little Rock, Little Rock, AR*  
 Dissertation Title: "*Examining Intensive Groups in Large Social Networks*"
  - 5) **Tuja Khaund, Ph.D.,** Graduated Spring 2021  
*The Department of Information Science at UA-Little Rock, Little Rock, AR*  
 Dissertation Title: "*Leveraging Social Network Analysis to Study Coordination in Online Information Campaigns*"
  - 6) **Abdullah Al Faysal, MS.,** Graduated Summer 2020  
*The Department of Information Science at UA-Little Rock, Little Rock, AR*  
 Project Title: "*Using YouTube Trending Videos to Predict the Population Distribution by Nationality for a Region*"
  - 7) **Adewale Muyiwa Obadimu, Ph.D.,** Graduated Summer 2020  
*The Department of Information Science at UA-Little Rock, Little Rock, AR*  
 Dissertation Title: "*Assessing the Role of Social Media Platforms in the Propagation of Toxicity*"
  - 8) **Muhammad Nihal Hussain, Ph.D.,** Graduated Fall 2019  
*The Department of Information Science at UA-Little Rock, Little Rock, AR.*  
 Dissertation Title: "*Role of Multiple Social Media Platforms In Disinformation Campaigns*"
  - 9) **Hayder Al Rubaye, MS.,** Graduated Summer 2019  
*The Department of Applied Sciences at UA-Little Rock, Little Rock, AR*  
 Project Title: "*Designing YouTube Tracker Interface*"
- **Served as a Judge for Boosting Engineering Science and Technology (BEST) competition** to help middle and high school students interested in engineering careers November 4, 2017  
*University of Arkansas at Little Rock*
- **Served as a Judge for the Central Arkansas Regional Science & Engineering Fair (CARSEF) and the Intel International Science & Engineering Fair (Intel ISEF),** received certificate of "Appreciation for Outstanding Performance and Voluntary Contribution" February 28, 2014  
*University of Arkansas at Little Rock*

## Awards and Honors

### Awards:

1. **Received a "Thank You for Contributing a Book Chapter Letter"** October 26, 2018  
*Lieutenant General Michael D. Lundy, U.S. Army Commanding. The letter was sent along with a 7-volume set of books in recognition of my scholarship and as a token of appreciation.*
2. **Won the "Best Paper Award"** October 14, 2018  
*International Academy, Research and Industry Association (IARIA). The Eighth International Conference on Social Media Technologies, Communication, and Informatics for the publication titled "Understanding Digital Ethnography: Socio-computational Analysis of Trending YouTube Videos".*
3. **Staff Achievement Award for "Educational Achievements"** April 20, 2018  
*The 2018 Staff Awards Ceremony, University of Arkansas at Little Rock.*
4. **1<sup>st</sup> Place Technology Category on the Project "Analyzing Social Bots and their Coordination During Crisis Weather Events"** May 2, 2018  
*University of Arkansas at Little Rock. During the 2018 Student Research and Creative Works Showcase.*
5. **Won the "Best Paper Award"** October 12, 2017  
*International Academy, Research and Industry Association (IARIA). The Seventh International Conference on Social Media Technologies, Communication, and Informatics for the publication titled "Assessing Situation Awareness through Blogosphere: A Case Study on Venezuelan Socio-Political Crisis and the Migrant Influx".*
6. **Excellence in Research Award** May 2, 2017  
*Department of Information Science, in the 2<sup>nd</sup> Annual EIT (Engineering and Information Technology) Open House. University of Arkansas at Little Rock.*
7. **2<sup>nd</sup> Place "Most Innovative" Award (\$100)** May 2, 2017  
*Kinco Constructors, in the 2<sup>nd</sup> Annual EIT (Engineering and Information Technology) Open House. University of Arkansas at Little Rock.*
8. **2<sup>nd</sup> Place "Societal Impact" Award (\$50)** May 2, 2017  
*College of Engineering and Information Technology, in the 2<sup>nd</sup> Annual EIT (Engineering and Information Technology) Open House. University of Arkansas at Little Rock.*
9. **Outstanding Graduating Student Award (Master's Level)** May 5, 2015  
*College of Arts, Letters, and Sciences (CALs) at University of Arkansas at Little Rock.*
10. **Who's Who Among Students in American Universities and Colleges** Spring 2015  
*University of Arkansas at Little Rock*
11. **Chancellor's List and Dean's List** Fall 2010, Spring 2011, Spring 2012  
*University of Arkansas at Little Rock*
12. **Teaching Enhancements Affecting Minority Students Scholarship** Fall 2011, Spring 2012  
*University of Arkansas at Little Rock*

### Travel Awards:

1. **SBP-BRiMS2017 Student Travel Award** July 5, 2017  
*Social Computing, Behavioral Modeling, and Prediction Conference*
2. **ICDM 2015- Student Travel Award** November 14, 2015  
*The IEEE International Conference on Data Mining*
3. **EIT Student Travel Award** November 14, 2015  
*College of Engineering and Information Technology, UALR*
4. **SBP-BRiMS2015 Student Travel Award**

*Social Computing, Behavioral Modeling, and Prediction Conference*

April 3, 2015

**5. Graduate School Student Travel Award***Graduate School –University of Arkansas at Little Rock*

Spring 2015

**Other Honors:****1. The Information Science Department's Graduate Student Representative, EIT Dean's Student Leadership Board**

2017-2018

*University of Arkansas at Little Rock***2. Certificate of Perfect Attendance**

Fall 2009, Spring 2010

*IELP, University of Arkansas at Little Rock***Skills****Languages:**

- **Arabic:** Fluent/Native
- **English:** Proficient
- **French:** Basic/Familiarity

**Programming Languages:**

- HTML5 & CSS3, JavaScript, PHP, SQL, Python.

**Software:**

- Oracle Enterprise Manager Security tool, Microsoft WebMatrix, Apache HTTP Server, File Zilla Client, Apache, Microsoft Visual Studio C++, WinRDBI, My SQL Work Bench, PLC Allen Bradley, Electronics Workbench, MultiSIM, NodeXL, Gephi, Cytoscape, IBM Watson Analytics, ORA, Stanford Topic Modeling Toolbox or “TMT”, Weka, Tableau.

**Training Certificates:**

- 1. Social and Behavioral Research Investigators and Key Personnel, CITI Program Certificate.** October 30, 2017  
*University of Arkansas at Little Rock*
- 2. Introduction to Data Analysis with Demos.** March 16, 2016  
*Big Data University*
- 3. Using BigSheets for Spreadsheet-like Analytics.** March 15, 2016  
*Big Data University*
- 4. Watson Analytics Fundamentals (WA001EN).** March 11, 2016  
*Big Data University*
- 5. Hadoop Fundamentals I.** February 4, 2016  
*Big Data University*
- 6. Introduction to R Programming.** January 25, 2016  
*DataCamp*
- 7. Introduction to NoSQL and DBaaS.** January 18, 2016  
*Big Data University*
- 8. Big Data Fundamentals.** January 17, 2016  
*Big Data University*
- 9. Data Science Methodology.** January 16, 2016  
*Big Data University*
- 10. Certificate of Training Center for Computational Analysis of Social and Organizational Systems (CASOS) 2015 Summer Institute.** July 5 - 12, 2015

## Organizations

|  |              |
|--|--------------|
| Social Cybersecurity Working Group                       | 2019-Present |
| European Alliance for Innovation (EAI)                   | 2014-Present |
| Institute of Electrical and Electronics Engineers (IEEE) | 2013-Present |
| The Honor Society of Phi Kappa Phi                       | 2012-Present |
| Golden Key International Honor Society (GK)              | 2012-Present |
| Teaching Enhancements Affecting Minority Students        | 2011-Present |

## Selected Media Coverage & Interaction

1. Article entitled "Al-khateeb Publishes Article in Social Network Analysis and Mining Multidisciplinary Journal" [Creighton Today - October 18, 2021]
2. Article entitled "Al-khateeb Publishes Computer Science Research Article, Speaks at International Conference" [Creighton Today - July 20, 2021]
3. Article entitled "Al-khateeb's Book Receives Positive Review from Journal" [Creighton Today - February 25, 2021]
4. Article entitled "Al-khateeb Published in Journal of Computational and Mathematical Organization Theory" [Creighton Today on July 26, 2019]
5. Article entitled "Al-Khateeb Publishes Book on Social Cyber Forensic Analysis" [Creighton Today on April 18, 2019]
6. Article entitled "How to Spot 'Fake News'" [Creighton Magazine, 2019]
7. Article entitled "Creighton Professor Dedicated to Rooting Out Social Media's Trolls" [Creighton University Press Release on December 4, 2018].
8. Article entitled "Al-Khateeb Published Two Papers at 2018 International Conference on Advances in Social Networks Analysis and Mining (ASONAM)" [Creighton University Press Release on November 2, 2018].
9. Article entitled "UA Little Rock Paper Wins Award at International Conference for Research on Tracking Disinformation Campaigns Through Social Media" [UA Little Rock Press Release on August 22, 2018].
10. Article entitled "On the Front Line: UA Little Rock Students Work with Information Science Professor to Create Social Media Research Group" [Research in the Rock - Fall 2018]
11. Article entitled "Social Bots Disrupt Online Communication About Natural Disasters" [UA Little Rock Press Release].
12. Article entitled "UA Little Rock Honors Staff Members for Their Achievements" [UA Little Rock Press Release].
13. Article entitled "Research Explore How Online Narratives on Refugees Shift Over Time" [UA Little Rock Press Release].
14. Article entitled "Team COSMOS wins the best paper award at conference" [UA Little Rock Press Release].
15. Article entitled "UA Little Rock Doctoral Student Presents Research on Social Cyber Forensics" [UA Little Rock Press Release].
16. Article entitled "Military Supports Research at UALR" [Arkansas Democrat Gazette].
17. Article entitled "Agarwal Addresses NATO Meeting on Dangers of Information Disseminated by

- Botnets” [UA Little Rock Press Release] [NewsWise].
18. Article entitled “UALR Researchers Present Findings at NATO Conference” [UA Little Rock Press Release] [Arkansas Business] [NewsWise].
  19. Article entitled “UALR Professor Monitors ANTI-NATO Narratives for Operation Brilliant Jump” [UA Little Rock Press Release] [Public Now].
  20. Article entitled “Graph Visualizes Thousands of Tweets about Apple and #NoBackDoor” [UNH Press Release] [UNHcFREG Blog] [Fox61 Coverage].
  21. Article entitled “Agarwal and Students Present Research at Stanford-Hosted Symposia” [UA Little Rock Press Release].
  22. Article entitled “Study Demonstrates the Power of Social Media for Terror Propaganda” [UA Little Rock Press Release] [Phys.Org].