Email: najmeri@ncsu.edu

Web: https://niravajmeri.github.io

Tel: +1 (919) 449-8308

# Nirav Ajmeri

## EDUCATION

### North Carolina State University, USA

Aug 2012-May 2019

Ph.D. in Computer Science

Dissertation Title: Engineering Multiagent Systems for Ethics and Privacy-Aware Social Com-

puting

Adviser: Professor Munindar P. Singh

#### North Carolina State University, USA

Aug 2012–Dec 2018

M.S. in Computer Science

#### Gujarat University, India

Oct 2003-May 2007

B.E. in Computer Engineering (First class)

## RESEARCH EXPERIENCE

## North Carolina State University

Aug 2012–Dec 2018

Graduate Research Assistant, Multiagent Systems and Service-Oriented Computing Laboratory, Raleigh  ${\rm NC}$ 

- Designing ethics and privacy-aware socially intelligent agents [J1, J7, C9, C12, R18, R21]
- Formal specification and analysis of security and privacy policies [J4, J5, C13, C15, R19]
- Understanding effects of sanctions for secure software development practices [J2, J6, C16]
- Exploring creativity techniques to acquire requirements via crowdsourcing [C10, C11, R20]
- Large-scale sentiment analysis of privacy news in the USA and UK

[C11]

• Event identification via anomalous patterns in tweets' sentiments; tested on 12 million tweets related to the Indian General Election 2014

## HERE Technologies (formerly Nokia Maps)

Sep 2017-Dec 2017

Research Intern, CTO Research, Chicago IL

• Built location privacy preserving data publishing, query answering, and learning systems

#### **Tata Consultancy Services**

Sep 2007-Jul 2012

Researcher, Software Engineering Lab, TCS–TRDDC, Pune, India

• Knowledge engineering for agile requirements evolution

[B9, J5]

- Developed text mining approach to extract actors, use cases, process workflows and business rules from unstructured requirements specifications
- Designed (traditional and agile) requirements evolution and knowledge modeling workflows

SKILLS

Languages: Java, Python, Ruby, R, JavaScript, RDF, OWL, HTML

Databases: Oracle, MySQL, SQLite

Toolkit and frameworks: Weka, Scikit-learn, TensorFlow, Flask, Ruby on Rails

**IDE** and other tools: Eclipse, Android Studio, Matlab

## AWARDS AND ACCOLADES

- NSF Travel Grant to attend the Requirements Engineering Conference (declined) 2018
- Among 10 US doctoral students selected by the Office for Science & Tech. of the French Embassy in the US to participate in the FADEx program on Artificial Intelligence 2018
- Best Paper Award, 15th International Conf. on Privacy, Security and Trust [C11] 2017
- Outstanding Research Award, Department of Computer Science, NCSU 2016–2017
- AAMAS Travel Scholarship

2017

• Outstanding Research Paper Award, TCS [B17]

2012

• Mentor, Best Student Intern Research Project, TCS

2009

2010, 2011

• Beyond Performance Award—Patron of the Library, TCS

- 2007
- Departmental nominee for the Best Outgoing Student award, SVIT Vasad, GU

## JOURNAL PAPERS & COLUMNS

- [J1] N. Ajmeri, H. Guo, P. K. Murukannaiah, and M. P. Singh. Designing Ethical Personal Agents. IEEE Internet Computing, 22(2):16–22, 2018.
- [J2] S. Al-Amin, N. Ajmeri, H. Du, E. Z. Berglund, and M. P. Singh. "Toward Effective Adoption of Secure Software Development Practices." Simulation Practice and Theory, 85:33–46, 2018.
- [J3] H. Guo, N. Ajmeri, and M. P. Singh. "Teaching Crowdsourcing: An Experience Report." IEEE Internet Computing, 22(1):1–8, 2018. To appear.
- [J4] N. Ajmeri, C-W. Hang, S. Parsons, and M. P. Singh. "Aragorn: Eliciting and Maintaining Secure Service Policies." IEEE Computer, 50(12):50–58, 2017.
- [J5] R. Kafalı, N. Ajmeri and M. P. Singh. "Revani: Revision and Verification of Normative Specifications for Privacy." IEEE Intelligent Systems, 31(5):8–15, 2016.
- [J6] L. G. Nardin, T. Balke, N. Ajmeri, A. K. Kalia, J. S. Sichman and M. P. Singh. "Classifying Sanctions and Designing a Conceptual Sanctioning Process Model for Socio-Technical Systems." The Knowledge Engineering Review. 31(2):142–166, 2016.
- [J7] P. K. Murukannaiah, N. Ajmeri and M. P. Singh. Engineering Privacy in Social Applications. IEEE Internet Computing, 20(2):72–76, 2016. [Selected for inclusion in IEEE Computer Society's ComputingEdge, Aug 2016.]
- [J8] M. Daneva, E. van der Veen, C. Amrit, S. Ghaisas, K. Sikkel, R. Kumar, N. Ajmeri, U. Ramteerthkar and R. Wieringa. "Agile Requirements Prioritization in Large-scale Outsourced System Projects: An Empirical Study." JSS. 86(5): 1333–1353, 2013.

#### Conference Papers

- [C9] N. Ajmeri, H. Guo, P. K. Murukannaiah, and M. P. Singh. "Robust Norm Emergence by Revealing and Reasoning about Context: Socially Intelligent Agents for Enhancing Privacy." Proc. 27th International Joint Conf. Artificial Intelligence (IJCAI), pages 28–34, 2018.
- [C10] V. T. Dhinakaran, R. Pulle, N. Ajmeri, and P. K. Murukannaiah. "App Review Analysis via Active Learning: Reducing Supervision Effort without Compromising Classification Accuracy." Proc. 26th International Requirements Engineering Conf. (RE), pages 170–181, 2018.
- [C11] K. Sheshadri, N. Ajmeri, J. Staddon. "No (Privacy) News is Good News: An Analysis of Privacy News in the U. S. and U. K. from 2010–2015." Proc. 15th International Conf. Privacy, Security and Trust (PST), pages 1–10, 2017. [Best Paper Award]
- [C12] N. Ajmeri, P. K. Murukannaiah, H. Guo, and M. P. Singh. "Arnor: Modeling Social Intelligence via Norms to Engineer Privacy-Aware Personal Agents." Proc. 16th International Conf. Autonomous Agents and Multiagent Systems (AAMAS), pages 230–238, 2017.
- [C13] R. Kafalı, N. Ajmeri and M. P. Singh. "Kont: Computing Tradeoffs in Normative Multiagent Systems." Proc. 31st AAAI Conf. Artificial Intelligence (AAAI), pages 3006–3012, 2017.
- [C14] P. K. Murukannaiah, N. Ajmeri, and M. P. Singh. "Acquiring Creative Requirements from the Crowd". Proc. 24th International Requirements Engineering Conf. (RE), pages 176–185, 2016.
- [C15] N. Ajmeri, J. Jiang, R. Chirkova, J. Doyle, and M. P. Singh. "Coco: Runtime Reasoning About Conflicting Commitments." Proc. 25th International Joint Conf. Artificial Intelligence (IJCAI), pages 17–23, 2016.
- [C16] H. Du, B. Y. Narron, N. Ajmeri, E. Berglund, J. Doyle and M. P. Singh. "Understanding Sanction under Variable Observability in a Secure, Collaborative Environment." Proc. HotSoS, pages 12:1–12:10, 2015.

#### BOOK Chapter

[B17] S. Ghaisas and N. Ajmeri. "Knowledge-assisted Ontology-based Requirements Evolution." Managing Requirements Knowledge, pages 143–167, Springer Berlin Heidelberg, 2013.

#### Working Drafts

- [R18] N. Ajmeri, H. Guo, P. K. Murukannaiah, and M. P. Singh. "Privacy and Values in a Web of Socially Intelligent Agents." Submitted to WWW 2019.
- [R19] R. Kafalı, N. Ajmeri, and M. P. Singh. "Desen: Specification and Engineering of Normative Multiagent Systems via Design Patterns."
- [R20] P. Murukannaiah, N. Ajmeri, F. M. Rahman, and M. P. Singh. "Can Crowd Teams Produce Creative Requirements? Yes and No."
- [R21] A. K. Kalia, N. Ajmeri, K. Chan, J. Cho, S. Adalı, and M. P. Singh. "A Bayesian Model of Trust, Moods, Goals, Commitments, and Emotions in Multiagent Systems."

Professional
SERVICE

## **Proceedings Chair**

• Symposium and Bootcamp on the Science of Security (HotSoS)

2014

2012

2012

#### **Program Committee**

- International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2019
  AI for Requirements Engineering (AIRE) workshop
- Crowd-based Requirements Engineering (CrowdRE) workshop 2017
- ACM COMPUTE

#### Reviewer

- AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES) 2019
- The Web Conference (formerly WWW) 2019
- Springer Automated Software Engineering (AuSE) 2019
- ACM Transactions on Intelligent Systems and Technology (TIST) 2018
- Autonomous Agents and Multi-Agent Systems (JAAMAS) 2018
- IEEE Transactions on Parallel and Distributed Systems (TPDS) 2017
- Learning from Authoritative Security Experiment Results (LASER) workshop 2017
- Symposium on Usable Privacy and Security (SOUPS) 2016
- Normative Multiagent Systems 2015
- Managing Requirements Knowledge book 2012
- India Software Engineering Conference

#### Student Volunteer

- International Joint Conference on Artificial Intelligence (IJCAI) 2016
- ACM Conference on Computer and Communications Security (CCS) 2012
- AIMS International Conference of Management 2006, 2007
- International Conf. Operations and Quantitative Management (ICOQM) 2005, 2006

## Webmaster

- AIMS International Conference of Management 2006, 2007
- International Conf. Operations and Quantitative Management (ICOQM) 2005, 2006

# Collaborators (in last five year)

- Amazon: Shubham Goyal
- Brandenburg University of Technology, Germany: Luis G. Nardin
- HERE Technologies: Raghavendran Balu, Matei Stroila, and Bo Xu
- Google: Jessica Staddon
- IBM: Chung-Wei Hang, Anup K. Kalia, and Zhe Zhang
- Kings College, UK: Simon D. Parsons
- Microsoft: Guangchao Yuan
- Rochester Institute of Technology, NY: Pradeep K. Murukannaiah
- University of Kent, UK: Özgür Kafalı
- University of Sao Paulo, Brazil: Jaime S. Sichman

#### WEBSITE

Personal. https://niravajmeri.github.io

DBLP. http://dblp.uni-trier.de/pers/hd/a/Ajmeri:Nirav

Google Scholar. https://scholar.google.com/citations?user=aACjWd8AAAAJ&hl=en

LinkedIn http://www.linkedin.com/in/niravajmeri

Github. https://github.com/niravajmeri