**Supraja Gurajala, Ph.D.**

Assistant Professor

Department of Computer Science

Dunn 307, SUNY Potsdam,

44 Pierrepont Avenue, Potsdam, NY 13676

Telephone: (315) 267-2091

E-Mail: gurajas@potsdam.edu

# Research Expertise:

# Machine Learning, Big Data and Data Analytics, Databases, and Computer Networks

# Education:

PhD., Computer Science, Clarkson University, Potsdam, NY Aug 2018

# Thesis: Social Media Sensing: Towards Accurate Prediction and Analysis of Events

# Advisor: Prof. Jeanna Matthews

M.S., Computer Science, Clarkson University, Potsdam, NY Nov 2004

B.E., Electronics Engineering, Vellore Institute of Technology, India June 2001

# Employment:

# Assistant Professor, Department of Computer Science, 2018 Fall - present

SUNY Potsdam, Potsdam, NY

Instructor, Department of Computer Science, 2017 - 2018 Spring

# SUNY Potsdam, Potsdam, NY

Teaching Assistant, Computer Science, Clarkson University 2013 - 2016

Adjunct Faculty, Computer Information Systems, 2010 - 2013

SUNY Canton, Canton, NY

Graduate Assistant, Mathematics and Computer Science, 2002 - 2004

Clarkson University, Potsdam, NY

# Courses Taught:

Introduction to programming (JAVA), C++, PERL, Database Systems, Introduction to Cryptography, Computer Networks, Machine Learning and Theory of Computation.

# Awards:

# Sanda Briggs outstanding teaching assistant award for computer science, 2015

# Sanda Briggs outstanding teaching assistant award for computer science, 2016

# Discretionary Award for teaching, Provost’s office, 2017-2018

# Discretionary Award for teaching, Provost’s office, 2018-2019

# Peer-Reviewed Publications:

# Gurajala S., Dhaniyala S., Matthews J. N., Understanding Public Response to Air Quality Using Tweet Analysis. Social Media + Society. <https://doi.org/10.1177/2056305119867656>, May 2019

# Gurajala S. and Matthews J.N., Twitter Data Analysis to Understand Societal Response to Air Quality. In Proceedings of the 2018 International Conference on Social Media & Society. ACM, July 2018.

# Gurajala S., White J. S., Hudson B., Voter R. B., and Matthews N. J., "Profile Characteristics of Fake Twitter Accounts." Big Data & Society 3, no. 2 (2016): 2053951716674236.

# Gurajala S., White J. S., Hudson B. and Matthews J. N., Fake Twitter Accounts: Profile Characteristics Obtained Using an Activity-Based Pattern Detection Approach, In Proceedings of the 2015 International Conference on Social Media & Society (p. 9). ACM, July 2015.

# M. Sarkar, S. Gurajala and S. Kumar, A MAC Protocol to Support QoS for Multimedia Traffic Transmission over Ad Hoc Networks, ACM International Wireless Communications and Mobile Computing Conference (IWCMC’07), Honolulu, Hawaii, August 12–16, 2007.

# S. Kumar, M. Sarkar, S. Gurajala and John D. Matyjas, MMMP: A MAC Protocol to Ensure QoS for Multimedia Traffic over Multi-hop Ad Hoc Networks, Journal of Information Processing Systems, Vol. 4, No.2, June 2008, pp. 75-86.

# M. Sarkar, S. Gurajala and S. Kumar, A QoS-Aware Medium Access Control Protocol for Real Time Traffic in Ad Hoc Networks, 18th IEEE Annual International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC’07), Athens, Greece, 3-7 Sept. 2007.

# Research Presentations:

# Gurajala S., Dhaniyala S., Big Data and Air Quality: Using Twitter Data for Air Quality Monitoring, American Association for Aerosol Research 37th Annual Conference, Portland, Oregon, Oct 14 – Oct 18, 2019.

1. Gurajala S., Data Visualization, Computer Science ACM seminar, SUNY Potsdam, Potsdam, NY, Nov 2019.
2. Workshop co-organizer/instructor: Sensors and Data Analytics, Aug 5 to 9 (5-day workshop), Clarkson University, Potsdam, NY, 2019.
3. Kumar V., Patel V., Sur S., Dhaniyala S., Gurajala S., Mondal S., Air quality prediction using LUR model: Parameter reduction and optimization, 3rd Annual Spring Research And project Showcase conference, Clarkson University, Potsdam, NY, April 2019.
4. Kumar V., Patel V., Sur S., Dhaniyala S., Gurajala S., Mondal S., LUR model for air quality: Optimization of parameter space, 13th Annual Probability & Statistics Day At UMBC, Baltimore, MD, April 2019
5. Gurajala S., Challenges in monitoring air quality using social media data, AIR Lab, Clarkson University, Potsdam NY, 2018, December.
6. Gurajala S., BigData: Towards accurate prediction of events, Computer Science ACM seminar, SUNY Potsdam, Potsdam, NY, 2018, October.
7. Gurajala S., Can we build accurate spatio-temporal event models with social media data?, David A. Walsh‘67 Arts & Sciences Conference , Potsdam NY, 2018, August.
8. Gurajala S., Twitter data analysis to understand societal response to air quality. 2018 International Conference on Social Media & Society, Copenhagen Denmark 2018, July.
9. Gurajala S., Fake Twitter accounts: Profile characteristics obtained using an activity-based pattern detection approach. 2015 International Conference on Social Media & Society, Toronto, Canada 2015, July.

# Accepted upcoming Presentation:

1. Kumar V., Mondal S., Gurajala S., Sur S., Dhaniyala S., Evaluating spatio-temporal accuracy of LUR models using low-cost sensor network data, 2020 Air Sensors International Conference, Pasadena, California, May 12-15, 2020.

# Professional Meetings Attended:

1. CCI Winter Workshop, SUNY Potsdam, Potsdam, NY, January 22 2020.
2. Sensors and Data Analytics Workshop, Aug 5 to 9 (5-day workshop), Clarkson University, 2019.
3. Statistical Decision-Making using Bayesian Inference, Workshop, 9th and 10th May, Clarkson University, 2019.
4. ACM New York Celebration of Women in Computing, April 12-13, 2019, Lake George, NY.
5. David A. Walsh‘67 Arts & Sciences Conference, Clarkson University, Potsdam, NY, August 2018
6. 2018 International Conference on Social Media & Society, Copenhagen Denmark 2018, July.
7. ACM New York Celebration of Women in Computing, April 21-22 2017, Rochester, NY. Escorted eight SUNY Potsdam Computer Science students.
8. 2015 International Conference on Social Media & Society, Toronto, Canada, July 2015.

# Research Proposals Written:

# Proposal to National Science Foundation (submitted, in review): "SUNY Potsdam Computer Science (SPOCS) Scholarship Program." Spring 2017.

# Proposal to National Science Foundation (submitted, in review): "SUNY Potsdam Computer Science (SPOCS) Scholarship Program." Spring 2018.

# Proposal to NYSERDA, A low-cost air quality sensor network for accurate exposure assessment, Suresh Dhaniyala (PI), David Rich, Philip K. Hopke, Supraja Gurajala, Request: $575,325, 03/01/2019 to 02/28/2022.

# Pre-Proposal to Health Effects Institute (HEI), RFA 19-1: Applying Novel Approaches to Improve Long-Term Exposure Assessment of Outdoor Air Pollution for Health Studies, Suresh Dhaniyala (PI), David Rich, Philip K. Hopke, Supraja Gurajala, Total amount requested: $800,000, March 2019.

# Papers Reviewed:

* *“Rage against the sentiment machine: Evaluating human and machine sentiment analysis of political Twitter discourse”* For Big Data & Society Journal.

# University Service:

# *Committee assignments:*

# Computer Science faculty senate representative for Fall 2019 and Spring 2020

# Open House: Represented Computer Science department in open houses at SUNY Potsdam, Spring 2019 and Fall 2019.

# Major Affairs: Represented Computer Science department in major affairs at SUNY Potsdam, Fall 2018

# *Computer Science Board of Advisors Meeting:* Participated in computer science BOA meetings every semester since Spring 2017 to Fall 2019

# *Student Advising*: Advised about 21 students from Fall 2017 to Fall 2019

# *Building Computer Science concentrations:* Leading in developing new courses towards Data Analytics concentration. Offering new courses towards Computer Security concentration.

# *Presentations:* Research talk presentations in Computer Science department Fall 2017, Fall 2018, and Fall 2019

# *Workshop:* Resume workshop for computer science students Fall 2019