

Neeti Pokhriyal

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Research Interests

Machine Learning, Data Mining, Algorithm Design. I am passionate about developing creative solutions to problems having broader social impact in multi-disciplinary environment.

Awards

- **Awarded 20K in financial support from Gates Foundation** for poverty mapping using mobile phone data in Senegal, 2015-2016.
- **Travel Support** to attend International Conference on Computational Sustainability, Cornell 2016.
- **Winner - National Statistics Prize & 2K monetary prize, Data for Development (D4D), Challenge** held at MIT, 2015.
- **Dean's Distinguished Fellowship Award** at University of California, Riverside, 2008.
- **Honors Undergraduate Degree in Computer Engineering**, 2005.
- **Certificate of Merit** in Mathematics for being in top 0.01 of the 500,000 students sitting for Secondary Examination, 1998.

Publications

- **Combining disparate data sources for improved poverty prediction and mapping**, N. Pokhriyal, D. Jacques, Proceedings of the National Academy of Sciences (PNAS), 2017.
- **Cognitive-Biometric Recognition from Language Usage: A Feasibility Study**, N. Pokhriyal, I. Nwogu, V. Govindaraju, IEEE Transactions in Information Forensics, 2016.
- **Virtual Network and Poverty Analysis in Senegal**, N. Pokhriyal, W. Dong, V. Govindaraju, NetMob, MIT, 2015
- **A Large-scale Study of Language Usage as a Cognitive Biometric Trait**, Neeti Pokhriyal, I. Nwogu, V. Govindaraju, Elsevier Handbook on Big Data Analytics, 2015 (Invited).
- **Use of Language as a Cognitive Biometric Trait**, N. Pokhriyal, I. Nwogu, V. Govindaraju, at IEEE International Joint Conference on Biometrics (Acceptance Rate 80/240=30%), 2014.
- **Analysis of nucleosome positioning landscapes enables gene discovery in the human malaria parasite Plasmodium falciparum**, X. M. Lu, E. M. Bunnik, N. Pokhriyal, S. Nasser, S. Lonardi, K. Le Roch, BMC Genomics, 2015.
- **Novel Gene Discovery in the Human Malaria Parasite using Nucleosome Positioning Data**, N. Pokhriyal, N. Ponts, E. Harris, K. Le Roch and S. Lonardi, International Conference on Computational Systems Bioinformatics (Acceptance Rate 30/135=22%), Stanford, 2010.
- **Anomaly Detection for High Fidelity Core Simulators**, N. Pokhriyal, U. Mertzyurek, A. Godfrey, J. J. Billings, In Proc. of the American Nuclear Society Annual Meeting, 2013.

Talks

- **A Computational Approach to Poverty Mapping**, International Conference on Computational Sustainability, Cornell, 2016.
- **Virtual Networks and Poverty Analysis - A case study**, National Statistics Office of Senegal, Dakar, June and November 2015.
- **Virtual Networks and Poverty Analysis in Senegal**, MIT, NetMob, April 2015.
- **Computational Framework for Novel Gene Discovery via Machine Learning**, Oak Ridge National Laboratory, Computer Science Research Seminar, February 2012. (Invited)
- **Knowledge Discovery from Nuclear Reactor Simulation Data**, International Workshop on Analytics for Cyber-Physical Systems, SIAM International Data Mining Conference'13.

Professional Experience

University at Buffalo, The State University of New York, NY Graduate Research Assistant, Computer Science and Engineering Department	Jan 2014 – now
Oak Ridge National Laboratory , Oak Ridge, TN Research Associate, Computer Science and Mathematics Division	July 2012 – May 2013
University of California, Riverside, CA Graduate Research and Teaching Assistant, Computer Science Department	Sept. 2008 – Dec. 2009
Tata Consultancy Services Ltd. , Mumbai, India Assistant Systems Engineer, Nortel Technology Laboratory.	Sept. 2005 – Oct. 2007

Education

University at Buffalo, The State University of New York PhD, Computer Science and Engineering	August 2013 - Present
University of California, Riverside Masters, Computer Science	April 2008 - Dec. 2009
Aligarh Muslim University, India Bachelors in Technology, <i>with Honors</i> Computer Engineering	July 2001 – May 2005

Working Papers

- **Discriminative Factorized Subspace Learning**,
N. Pokhriyal, V Govindaraju, 2018.
- **Quantifying Information accessibility and poverty prediction**,
N. Pokhriyal, V. Govindaraju, 2018.