Curriculum Vitae

Vivek Kumar Singh

Assistant Professor
Information Systems and Technology
College of Business Administration,
University of Missouri – St. Louis
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EDUCATION

- Ph.D. (Information Systems), 2019
  MUMA College of Business, University of South Florida, USA.

- Master of Technology (Information Technology), 2011
  International Institute of Information Technology – Bangalore, INDIA

- Bachelor of Science (Engineering) (Information Technology), 2008
  Muzaffarpur Institute of Technology, INDIA

PROFESSIONAL SUMMARY

7.5 years of academic and industry research and development (R&D) experience in business analytics, machine learning, cloud computing, healthcare analytics, and telecommunication.

RESEARCH INTEREST

Business Analytics, Machine Learning, Cloud computing, and Healthcare Analytics.

RESEARCH PAPERS

Journal Publications

- Singh, V.K., Shrivastava, U., Bouayad, L., Padmanabhan, B., Ialynytchev, A. and Schultz, S.K., 2018. Machine learning for psychiatric patient triaging: an investigation of cascading classifiers. *Journal of the American Medical Informatics Association*, 25(11), pp.1481-1487. [Impact factor: 4.292]

- Singh, V.K., Nishant, R. and Kitchen, P.J., 2016. Self or simulacra of online reviews: an empirical perspective. *Psychology & Marketing*, 33(12), pp.1112-1118. [Top tier Journal in Marketing, Impact factor: 2.02]

- Dutta, K., Singh, V.K., Chakraborty, P., Sidhardhan, S.K., Krishna, B.S. and Dash, C., 2017. Analyzing big-five personality traits of Indian celebrities using online social media. *Psychological Studies*, 62(2), pp.113-124.

Working Papers

- Singh, V. K., Dutta, K., Shivendu, S. (2018). Spot market adoption in cloud computing: Substitution, price dynamics, and IT investment.

- Vivek K. Singh, Kaushik Dutta, and Balaji Padmanabhan (2018). Proactive Threat Detection and Prediction in Cloud computing.

- Vivek K. Singh, Kaushik Dutta (2018). Scarf: A Secured Cloud FileSystem (Target: ACM Transactions on Management Information Systems)

Conferences Publications

- Vivek K. Singh, Saurav Chakraborty, and Arjun Kadian, "The Effects of Knowledge Sharing on Open Source Contribution: A Multi-platform Perspective," accepted at 53rd Annual Hawaii International Conference on System Sciences (HICSS 2020), Hawaii, USA.

- de Vreede, T., Andel, S., de Vreede, G.J., Spector, P., Singh, V. and Padmanabhan, B., 2019, January. What is Engagement and How Do We Measure It? Toward a Domain Independent Definition and Scale. In Proceedings of the 52nd Hawaii International Conference on System Sciences.

- Arjun K., Vivek Singh, Anol Bhattacharjee, "Detecting Clickbait Using User Emotions and Behaviors on Social Media," Accepted at *International Conference on Information Systems (ICIS 2018)*, San Francisco, CA.

- Vivek Singh and Kaushik Dutta (2018). Predicting Security Events in Cloud Computing, *24th Americas Conference on Information Systems (AMCIS 2018)*, New Orleans, LA.

- Andel, S., Vreede, T. de, Vreede, G.J. de, Padmanabhan, B., Singh, V., and Spector, P. (2018). The Development of a Multidimensional Engagement Measure*, 24th Americas Conference on Information Systems (AMCIS 2018)*, New Orleans, LA.

- Vivek Singh, Anol Bhattacherjeee, Jaideep S, Utkarsh S, Shixuan F. (2018) The Effect of Image Choice on Airbnb reservations: A Combination of Deep Learning and Econometric Analysis, *24th Americas Conference on Information Systems (AMCIS 2018)*, New Orleans, LA.

- Singh, Vivek & Padmanabhan, Balaji & de Vreede, Triparna & de Vreede, Gert-Jan & Andel, Stephanie & Spector, Paul & Benfield, Steve & Aslami, Ahmad. (2018). A Content Engagement Score for Online Learning Platforms. *ACM Learning At Scale (L@S 2018)*, London, UK.

- Vivek Singh and Kaushik Dutta (2018). SCARF: A Secured Cloud Filesystem. *13th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2018)*, IIT Madras, India.

- Vivek Kumar Singh, Subhashree Basu, Yi Yu, Roger Zimmermann, "VIDEOPEDIA: Lecture Video Recommendation for Educational Blogs using Topic Modeling", *Proceedings of the Twenty Second International Conference on Multimedia Modelling (MMM 2016)*, Miami, USA

- S. Kajanan, Vivek Kumar Singh, Biying Tan, Chandra S, GiuseppeM, "Clairvoyant-Push: a Real Time News Personalised Push Notifier which uses Topic Modeling and Social Scoring to drive readers engagement*", 2015 IEEE conference on Big Data (IEEE BigData 2015)*, Santa Clara, USA

- Vivek Kumar Singh, Kaushik Dutta, "Dynamic Price Prediction for Amazon Spot Instances", *48th Annual Hawaii International Conference on System Sciences (HICSS 2015),* Hawaii, USA.

- Vivek Kumar Singh; Dutta, K.; VanderMeer, D., "Estimating the Energy Consumption of Executing Software Processes," Green Computing and Communications, *2013 IEEE*

*International Conference on Green Computing and Communications and IEEE Internet of Things and IEEE Cyber, Physical, and Social Computing (**Greencom 2013**)*, China.

- Kaushik Dutta, Vivek Kumar Singh, Debra VanderMeer, "Estimating Operating System Process Energy Consumption in Real Time", *International Conference on Design Science Research in Information Systems and Technology (**DESRIST 2013**)*, Helsinki, Finland, June 11-12, 2013

- Vivek Kumar Singh, Suhas Hegde Ankadi, and Debabrata Das. "Study of combined effects of zero copy and pre-processing on Input/Output performance of multimedia on demand streaming server," *Third International Conference on Communication Systems and Networks (**COMSNETS**)*. IEEE, 2011.

- Sujithra Sriganesh, Vivek Kumar Singh, Sudha Mani and Chandrashekar Ramanathan,"Using Model Based Testing Techniques for White Box Testing", *International Conference on Software and Information Engineering(**ICSIE 2011**)*, Kuala Lumpur, Malaysia

- Vivek Kumar Singh, Ritesh Kumar Kalle, and Debabrata Das. "EPGLU: Enhanced PGLU timer for paging and location update optimization in IEEE 802.16m based WiMAX networks". *17th Asia-Pacific Conference on Communications (**APCC**), 2011.*

- Vivek Kumar Singh, Ritesh Kumar Kalle, and Debabrata Das. "Study of latency in Enhanced-PGLU (EPGLU) timer based paging in IEEE 802.16 m based WiMAX networks." *IEEE 5th International Conference on Internet Multimedia Systems Architecture and Application (**IMSAA**).*

Conference Presentations

- Vivek Singh and Kaushik Dutta (2019). SCARF: Accidental Data Leak Protection in Cloud Computing. *2019 Winter Conference on Business Analytics*, Utah, USA.

- Vivek Singh, Kaushik Dutta, and Balaji Padmanabhan (2018). Proactive threat prediction using LSTM in cloud computing, *Conference on Data Science for Business and Economics,* Purdue University.

- Vivek Kumar Singh, Zachary Kazanski, Utkarsh Strivastava, Lina Bouayad, Balaji Padmanabhan, Anna Ialynytchev (2017). Machine Learning for Patient Triaging in Healthcare: An Investigation of Cascading Classifier in Psychiatric Triaging. *2017 Winter Conference on Business Analytics (**WCBI**)*, Snowbird, Utah, USA.

- Lina Bouayad, Utkarsh Shrivastava, Vivek Singh, Anna Ialynytchev, Balaji Padmanabhan (2016). One Class at a Time: Experiments with Cascading Classifiers in Healthcare. 2016 *CEGS N-GRID Shared-Tasks and Workshop on Challenges in Natural Language Processing for Clinical Data*, Chicago, USA.

TEACHING EXPERIENCE

MUMA College of Business, University of South Florida (USF)

Under-graduate teaching overall average rating: 4.33/5.00

- ISM 4930: Applied Data Science. (Spring Semester - 2017).
- ISM 3113: System Analysis Design [Hybrid 50% online] (Fall Semester - 2017)

- ISM 4220: Business Data Communication (Spring semester - 2018)
- ISM 3113: System Analysis Design [Hybrid 50% online] (Fall Semester - 2018)

Graduate Programming Tutorials

- 1st R Programming Bootcamp (January 27, 2017), BSN 115, MUMA College of Business (ISDS), University of South Florida.
- 2nd R Programming Bootcamp (February 17, 2017), BSN 115, MUMA College of Business (ISDS)
- 3rd R Programming Bootcamp (August 18, 2017), BSF 100, MUMA College of Business (ISDS)
- 1st Python Programming– Data structure and Algorithm Bootcamp (August 14-16, 2017), BSF 100, MUMA College of Business (ISDS)

PATENTS

- Vivek Singh, Kaushik Dutta, Balaji Padmanabhan, Shalini S. (2018). "System and Method for a Secured Cloud File System," *US Provisional Patent No. 62/628,367.*

- Balaji Padmanabhan, Vivek Singh, Utkarsh Srivastava (2018), "System and Method for Expert-Assisted Classification," *US Provisional Patent No. 62/698,172.*

INDUSTRY RESEARCH PARTNERSHIP

OnQ, Atlanta, USA

Analytics and Insight Partner   *April 2017 to till date*
- Part of USF – OnQ analytics and insight research partnership.
- Scientifically test and validate efficacy of scoring models and product features.
- Publish results in premier conference and journal outlets.

PROFESSIONAL EXPERIENCE

University of Missouri – St. Louis, MO

Assistant Professor   July 2019 to Present
- Teaching undergraduate and graduate students in College of Business Administration.
- Involved in development of new courses in Business Intelligence and Data Science.
- Pursuing research in machine learning and its applications in healthcare and cloud computing, and data-driven security.
- Involved in drafting scientific grant applications in the fields of Artificial Intelligence and Cybersecurity workforce development.

University of South Florida, USA

Graduate Research Assistant (Doctoral student)   August 2015 to May 2019
- Pursuing high impact research and publishing.
- Course development and teaching undergraduate courses.
- Tutorials for graduate students in business analytics program.

DataSpartk, Singtel Corporation, Singapore

Data Scientist (Intern)   May 2015 to July 2015
- Research on Recommendation Systems for News and Online content on Mobile devices.
- Develop algorithms to solve challenging issues and apply on Big Data platforms.

School of Computing, National University of Singapore, Singapore

Research Assistant   November 2012 to Augusts 2015
- Designing software-based power meter for servers.
- Machine learning, Supervised learning, Support Vector Machines (SVM)
- Operating system: Linux

Alcatel Lucent India Limited (R&D), India
Software Engineer (R&D)   July 2011 to November 2012
- Design Engineer in WDCDMA- NodeB callP team
- Design and Transformation of NodeB call processing module.

IIIT-Bangalore, India
Internship/Thesis   November 2010 to June 2011
- Research in Wireless Network Lab (WNL), IIIT Bangalore in collaboration with Dept. of Information Technology, Government of India.
- Study of IEEE 802.16e standard especially power saving modes.
- Simulation of power saving mode, location update and paging in IEEE 802.16e using Exata 2.1.
- Simulation of IEEE 802.16m Power saving modes in Exata and its efficiency measurement using Exata 2.1 and analytical model.

IMS Innovation Lab, IIIT-Bangalore, India
Research Lab Assistant   November 2008 to July 2009
- Implementation and Maintenance of IP Multimedia Subsystem (IMS) test bed in IMS Innovation Lab, Bangalore.
- Maintenance and Troubleshooting of Firewall, Linux servers, Routers

SKILLS
- Programming – Expert and Tutor of R and Python Programming, Industry experience in C/C++ programming, STATA, SPSS, JAVA
- Databases – MySQL, AWS RDS
- Operating Systems/Systems – Linux, Windows, Amazon Web Services

AWARDS & HONORS
- NUS Graduate Scholarship, Ministry of Education, Singapore (2014)
- Graduate Scholarship, MUMA College of Business, USF, USA (2015)
- MUMA Doctoral Summer Research Grant (2016) [750$]
- JABIL Hackathon First Prize, USF [1000$]