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Dipak Kumar Singh

CONTACT INFORMATION

Room STEM 312K
Department of Computer Science
Stephen F. Austin State University
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INTERESTS

Theory: Probabilistic Machine Learning, Deep Learning, Computer Networks, Distributed Computing.
Applications: Computer Vision, Natural Language Processing, Data Center Networks, Big Data Analytics, Bioinformatics
Specific Research Areas: Spatio-Temporal analysis, geometric deep learning, optimization algorithms for data centers

EDUCATION

Ph.D. Computer Science,
Louisiana State University, Summer 2020
Baton Rouge, Louisiana, USA (GPA 3.97/4.0)
Thesis: A Study on the Improvement of Data Collection in Data Centers and Its Analysis on Deep Learning-based Applications

B.Tech Computer Science,
National Institute of Technology, April 2013
Durgapur, West Bengal, India (CGPA 8.39/10)

PROFESSIONAL PROFILE

Assistant Professor, Department of Computer Science,
Stephen F. Austin State University, Aug 2020-present

Reviewer Texas Academy of Sciences, 2021, 2022

Instructor/Teaching Assistant Louisiana State University, 2013-2018
Graduate Research Assistant Louisiana State University, 2019-2020

GRANTS

- Research/Creative Activity Grants
  Funding Agency: Stephen F. Austin State University
  Duration: Jan 2021 - Aug 2021
  Role: PI
  Amount: $7,450

- President's Innovation Fund
  Funding Agency: Stephen F. Austin State University
  Duration: June 2021 - May 2022
  Role: Co-PI
  Amount: $15,000

- President's Innovation Fund - Refinement Project
  Funding Agency: Stephen F. Austin State University
  Duration: Jan 2023 - Aug 2023
  Role: Co-PI
  Amount: $34,071

Publications

- Seungwon Yang, **Dipak K Singh**, Shayan Shams. "A Two-Step Approach to Detect and Understand Disinformation Events Occuring in Social Media: A Case Study with Critical Times", Journal of Contingencies and Crisis Management (JCCM), 2022. (Under review).
- **Dipak K Singh**, Shayan Shams, Seungwon Yang, Joohyun Kim, Seung-Jong Park. "Fighting for Information Credibility: An End-to-End Framework to Identify Fake News during Natural Disasters", International Conference on Information Systems for Crisis Response and Management (ISCRAM), 2020.
- Chui-hui Chiu, **Dipak K Singh**, Qingyang Wang, Kisung Lee, Seung-Jong Park. "Coflourish: An SDN-Assisted Coflow Scheduling Framework for Clouds", IEEE International Conference on Cloud Computing (CLOUD), 2017.
- Chui-hui Chiu, **Dipak K Singh**, Qingyang Wang, Kisung Lee, Seung-Jong Park. "Minimal Coflow Routing and Scheduling in OpenFlow-Based Cloud Storage Area Networks", IEEE International Conference on Cloud Computing (CLOUD), 2017.
- Chui-hui Chiu, Nathan Lewis, **Dipak K Singh**, Arghya Kusum Das, Mohammad M Jalazai, Richard Platania, Sayan Goswami, Kisung Lee, Seung-Jong Park. "BIC-LSU: Big Data Research Integration with Cyberinfrastructure for LSU," XSEDE Conference (XSEDE16), 2016.

Presentations

- Dipak Singh, Matthew Beauregard. "Developing a Modeling Mindset through Data Analytics", Joint Mathematics Meetings for Consortium for Mathematics and its Applications (JMM-COMAP), American Mathematical Society, 2023.

Teaching Experience

Course Instructor,
Object-Oriented Programming Principles
Computer Science Principles
Computer Networks
Network Administration
Data Analytics I
Data Analytics II
Introduction to Data Analytics
Data Analytics Capstone Project

Student Mentored Research Projects

Poster Publications

- Jaliyah Herbert, Dipak Singh. "Classification of Biofilm Formation using Artificial Intelligence", Summer Undergraduate Research Experience (SURE), Stephen F. Austin State University, 2022.
- Fares Soltani, Keith Hubbard, Vinh Dang, Brooke Busbee, Dipak Singh. "Learning Management Data Improves Predictions more than Classic Predictors", Southwest Data Science Conference (SDSC) 2022, Baylor University.
- Rachel Rucker, Vinh Dang, Keith Hubbard, Dipak Singh. "Machine Learning in Support of Student Success", Southwest Data Science Conference (SDSC) 2022, Baylor University.
- Don-Josh Argomido, Eric Chen, Dipak Singh. "Deep Learning Based Facemask Detection", Mentored Undergraduate Student Experience (MUSE), Department of Computer Science, Stephen F. Austin State University, 2021.

Personal Achievements

2017 LSU Alumni Association International Student Scholarship.

Honorable Mention, ACM-ICPC International Collegiate Programming Contest, 2013.
Research Summer Internship, DIVE lab, IYTE, Turkey, 2012.