

LAVANYA ELLURI

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Assistant Professor, Dept. of Computer Information Systems,
Texas A&M University – Central Texas, 1001 Leadership Pl, Killeen, TX 76549

Research Areas: Data Privacy and Security, Internet of Things, Semantic Web, Text Mining, Cloud Computing, Cybersecurity, and Smart Health.

CURRENT POSITION

Assistant Professor

August 2022 - Present

Subhani Department of Computer Information Systems
Texas A&M University-Central Texas

Killeen, TX

EDUCATION

Ph.D. in Information Systems

2018 - 2022

University of Maryland Baltimore County
(GPA: 3.9/4.0)

Master's in management information systems

2013 - 2014

University of Houston Clear Lake
(GPA: 3.8/4.0)

B.Tech. in Electronics and Communications Engineering

2006 - 2010

JNTU Hyderabad, India

PUBLICATIONS

Journals

1. Elluri, Lavanya, Varun Mandalapu, Piyush Vyas, and Nirmalya Roy. "Recent Advancements in Machine Learning for Cybercrime Prediction." *Journal of Computer Information Systems* (2023): 1-15. **Impact factor of 2.9 with Acceptance Rate of 12%**
2. Mandalapu, Varun, Lavanya Elluri, Piyush Vyas, and Nirmalya Roy. "Crime Prediction Using Machine Learning and Deep Learning: A Systematic Review and Future Directions." *IEEE Access* (2023). **Impact Factor 3.48 with Acceptance Rate 30%, Google Scholar #1 in Computer Science**
3. Elluri, Lavanya, et al. "A BERT Based Approach to Measure Web Services Policies Compliance With GDPR." *IEEE Access* 9 (2021): 148004-148016. **Impact Factor 3.48 with Acceptance Rate 30%, Google Scholar #1 in Computer Science**
4. Joshi, Karuna Pande, Lavanya Elluri, and Ankur Nagar. "An Integrated Knowledge Graph to Automate Cloud Data Compliance." *IEEE Access* 8 (2020). **Impact Factor 3.48 with Acceptance Rate 30%, Google Scholar #1 in Computer Science**
5. Elluri, Lavanya, Aritran Piplai, Anantaa Kotal, Anupam Joshi, and Karuna Pande Joshi. "A policy-driven approach to Secure Extraction of COVID-19 data from Research Papers." *Frontiers in Big Data*: 68. **Impact Factor 3.1**
6. Rahul, Dwivedi, Elluri, Lavanya. "Exploring Generative Artificial Intelligence Research: A Bibliometric Analysis Approach." (Under Review)

Conferences

7. Walid, Redwan, Karuna Pande Joshi, and Lavanya Elluri. "Secure and Privacy-Compliant Data Sharing: An Essential Framework for Healthcare Organizations." In 10th International Conference on Mathematics and Computing ICMC 2024. 2024.
8. Kotal, Anantaa, Lavanya Elluri, Deepti Gupta, Varun Mandalapu, and Anupam Joshi. "Privacy-Preserving

- Data Sharing in Agriculture: Enforcing Policy Rules for Secure and Confidential Data Synthesis." In 2023 IEEE International Conference on Big Data (BigData), pp. 5519-5528. IEEE, 2023.
9. Echenim, Kelvin, Lavanya Elluri, and Karuna Joshi. "Ensuring privacy policy compliance of wearables with IOT regulations." UMBC Center for Accelerated Real Time Analysis (2023).
 10. Joshua, Bolton, Lavanya, Elluri and Karuna Pande Joshi, "An Overview of Cybersecurity Knowledge Graphs Mapped to the MITRE ATT&CK Framework Domains," 2023 IEEE International Conference on Intelligence and Security Informatics (ISI)
 11. Dixit, Sharad, Karuna Pande Joshi, Seung Goel Choi, and Lavanya Elluri. "Semantically Rich Access Control in Cloud EHR Systems Based on MA-ABE." In 8th IEEE International Conference on Big Data Security on Cloud (BigDataSecurity 2022). IEEE, 2022.
 12. Kim, Dae-young, Lavanya Elluri, and Karuna P. Joshi. "Trusted compliance enforcement framework for sharing health big data." In 2021 IEEE International Conference on Big Data (Big Data), pp. 4715-4724. IEEE, 2021.
 13. Nagar, Ankur, Lavanya Elluri, and Karuna Pande Joshi. "Automated Compliance of Mobile Wallet Payments for Cloud Services." 7th IEEE International Conference on Big Data Security on Cloud (BigDataSecurity 2021).
 14. Elluri, Lavanya, Karuna Pande Joshi, and Anantaa Kotal. "Measuring semantic similarity across eu gdpr regulation and cloud privacy policies." In 2020 IEEE International Conference on Big Data (Big Data), pp. 3963-3978. IEEE, 2020.
 15. Elluri, Lavanya, Varun Mandalapu, and Nirmalya Roy. "Developing Machine Learning Based Predictive Models for Smart Policing." 2019 IEEE International Conference Smart Computing (SMARTCOMP). IEEE, 2019.
 16. Elluri, Lavanya, Ankur Nagar, and Karuna Pande Joshi. "An integrated knowledge graph to automate gdpr and pci dss compliance." 2018 IEEE International Conference on Big Data (Big Data).
 17. Elluri, Lavanya, and Karuna Pande Joshi. "A knowledge representation of cloud data controls for eu gdpr compliance." 2018 IEEE World Congress on Services (SERVICES). IEEE, 2018.

Ph.D. Dissertation

18. Lavanya Elluri. "A Semantically Rich Framework can Enable Real-time Knowledge Extraction and Classification from Short Length Semi-Structured Documents" (2021) (Ph.D. Dissertation, Advisor: Dr. Karuna Pande Joshi, UMBC.)

Posters

19. Elluri, Lavanya, and Karuna Pande Joshi. "A knowledge representation of cloud data controls for EU GDPR compliance." 2018 IEEE World Congress on Services (SERVICES). IEEE, 2018.

EXPERIENCE

Graduate Researcher Department of Information Systems University of Maryland Baltimore County	<i>Jan 2018 – May 2022</i>
Senior Database Engineer REI Systems, Inc.	<i>Jan 2015 – Aug 2022</i>
Instructional Assistant Database Systems Lab, University of Houston Clear Lake	<i>Jan 2014 - Dec 2014</i>
Systems Engineer Infosys, India.	<i>Mar 2011 - Jun 2013</i>

MENTORSHIP

Ph.D. Students

1. Josh Bolton (UMBC, 2024)
2. Kelvin Echenim (UMBC, 2024)

Master's Students

3. Ankur Nagar (UMBC, Fall 2018)
4. Abhishek Mahindrakar (UMBC, Fall 2019)

PROFESSIONAL ACTIVITIES & SERVICE

Program Committee and/or Technical Committee Member/ Review Board Member

- Program Committee Chair for Workshop on Big Data for Cybersecurity held in International IEEE Bigdata Conference
- Program Committee of International Conference on Interfaces and Human Computer Interaction
- Technical Committee of International Conference on Computational Intelligence in Data Science
- Program Committee member of ACM Workshop on Secure and Trustworthy Cyber-Physical Systems
- IEEE Transactions on Services Computing Review Board Member

Reviewer

- IEEE Transactions on Services Computing (TSC)
- IEEE Transactions on Dependable and Secure Computing (TDSC)
- International Journal of Information Management Data Insights
- IEEE International Conference on Edge Computing and Communications (EDGE)
- IEEE International Conference on Web Services (ICWS)
- IEEE ACCESS
- ACM Computing Surveys
- International Conference on Interfaces and Human Computer Interaction (IHCI)
- International Conference on Computational Intelligence and Data Science (ICCIDS)
- PeerJ Computer Science

TECHNICAL SKILLS:

Database Administration:	Oracle 12C, SQL Developer, Microsoft SQL Server 2008, SQL, PL/SQL
Data Warehousing Tools:	Informatica PowerCenter, MSBI (SSIS, SSAS, SSRS), OBIEE 11G, Tableau
Programming:	C, C++, Python, ASP.NET, C#.NET,
Operating System:	UNIX, Windows
Software:	Microsoft Office suite, Microsoft SharePoint
IDE:	Microsoft Visual Studio
Scripting Languages:	Perl, Shell Scripting
Statistical Languages:	R Language

TEACHING

- CIS 4350 - Management Information Systems
- CIS 3303 - Programming Logic and Design
- CIS 4360 - Strategic Information Systems
- CIS 5353 – Data Analytics and Management

AWARDS

- Best paper award at 8th IEEE International Conference on Big Data Security on Cloud/High Performance and Smart Computing /Intelligent Data and Security
- Stood second in project presentation event at HEADSTART National Level Technical Symposium
- Stood second in project presentation event at SRISTI National Level Technical Symposium

GRANTS

NSF Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII) - Automated Knowledge Representation for IoT Cybersecurity Regulations (Awarded)

NSF Improving Undergraduate STEM Education: Directorate for STEM Education (IUSE: EDU) - PEEP: Platform to Comprehend and Enforce Privacy in Development of Artificial Intelligence (Under Review)