ICMLBDA-2024 Special Session Proposal Template

Title	**AI Driven Computing Applications**
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Abstract (max 200 words)	The convergence of Big Data and Machine Learning (ML) is revolutionizing industries across the globe. This special session aims to explore the latest trends, applications, and advancements in leveraging Big Data and ML to drive transformative changes in various sectors. From predictive analytics and data-driven decision-making to automated processes and enhanced customer experiences, this session will delve into the cutting-edge developments in Big Data and ML. Researchers, industry practitioners, and policymakers will gain insights into the evolving landscape of these technologies and their potential impact on diverse domains.
Background and Justification (max 300 words)	Big Data and Machine Learning are at the forefront of reshaping industries by harnessing the power of vast datasets and advanced algorithms. This session aims to examine the emerging trends in the integration of Big Data and ML across diverse sectors. Topics include data analytics, predictive modeling, natural language processing, anomaly detection, and the optimization of business processes. The session will also address challenges, ethical considerations, and the societal impact of the widespread adoption of these technologies. The intersection of Big Data and Machine Learning is driving innovation and efficiency across industries. The following key areas highlight the potential contributions of these technologies: 1. Predictive Analytics: ML algorithms analyze large datasets to forecast trends, enabling proactive decision-making and strategic planning. 2. Data-Driven Decision Making: Big Data empowers organizations to make informed decisions based on comprehensive and real-time insights derived from diverse sources. 3. Automated Processes: ML facilitates the automation of routine tasks, optimizing operational efficiency and resource utilization. 4. Customer Experience Optimization: Big Data analytics and ML contribute to personalized customer experiences by understanding

	and predicting individual preferences. 5. Fraud Detection and Cybersecurity: ML algorithms enhance security measures by detecting anomalies and patterns indicative of fraudulent activities. 6. Healthcare Informatics: Big Data and ML applications in healthcare include patient data analysis, disease prediction, and personalized treatment plans. 7. Supply Chain Optimization: ML-driven analytics improve supply chain management, enhancing forecasting, inventory management, and logistics. 8. Natural Language Processing: Big Data and ML techniques enable machines to understand and process human language, leading to advancements in chatbots, language translation, and sentiment analysis. 9. Ethical Considerations: As Big Data and ML become integral to decision-making processes, ethical considerations regarding data privacy, bias, and transparency need thorough exploration.
Topics of interest	1. Predictive Analytics and Machine Learning 2. Data-Driven Decision Making in Industries 3. Automation and Optimization with ML 4. Personalization and Customer Experience 5. Fraud Detection and Cybersecurity 6. Healthcare Informatics using Big Data and ML 7. Supply Chain Optimization 8. Natural Language Processing in Industry Applications 9. Ethical Considerations in Big Data and ML Adoption