



## **Abschlussvortrag Masterarbeit Shadrach Ampadu Effah**

### „Architectures and Business Models for Machine Learning as a Service: A Systematic Literature Review“

This Study conducts a systematic literature review to analyze the practical applications, methodologies, theories, gaps, and future research scopes related to Machine Learning as a Service (MLaaS) architectures and business models. The specific objectives include identifying trends, methodologies, and theories in existing literature on MLaaS. The study reviews twenty papers selected based on specific criteria. The methodology involves a systematic review of literature to identify relevant studies addressing the objectives. Key findings reveal significant advancements in MLaaS applications across various domains, showcasing its effectiveness in improving fraud detection mechanisms in online advertising, enhancing the intelligence and security of online banking systems, and optimizing resource utilization in conferencing service provisioning.

Theoretical foundations include machine learning and deep learning theories, with applications in click fraud detection, cyber threat analysis, and IoT security. Industry-specific gaps highlight opportunities for research in online advertising, telecommunications, cybersecurity, and IoT security, emphasizing the need for more robust fraud detection methods and global collaboration. Methodological gaps suggest the need for innovative research approaches to address complex challenges in fraud detection, cybersecurity, and IoT security.

In conclusion, the study underscores the diverse applications and theoretical underpinnings of MLaaS, highlighting its potential for driving innovation and efficiency in various domains. This study recommends that future studies explore the adoption of advanced MLaaS techniques across several industries and propose global collaboration in research and development efforts.

Betreuer der Arbeit: Prof. Dr. Jörg P. Müller (Institut für Informatik), Prof. Dr. Benjamin Leiding

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Ort: Institut für Informatik (D3), Besprechungsraum 1.06, Julius-Albert-Straße 4, 38678 Clausthal-Zellerfeld