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## Paper 15 summary

1 message

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Fri, Sep 9, 2022 at 8:45 PM

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Here is submission summary.

Track Name: ICCIT2022

Paper ID: 15

Paper Title: Comparative Analysis of Interpretable Mushroom Classification using Several Machine Learning Models

**Abstract:**

An excellent substitute for red meat, mushrooms are a rich, calorie-efficient source of protein, fiber, and antioxidants. Mushrooms may also be rich sources of potent medications. Therefore, it's important to classify edible and poisonous mushrooms. An interpretable system for the identification of mushrooms is being developed using machine learning methods and Explainable Artificial Intelligence (XAI) models. The Mushroom dataset from the UC Irvine Machine Learning Repository was the one utilized in this study. Among the six ML models, Decision Tree, Random Forest, and KNN performed flawlessly in this dataset, achieving 100% accuracy. Whereas, SVM had a 98% accuracy rate, compared to 95% for Logistic Regression and 93% for Naive Bayes. The two XAI models SHAP (SHapley Additive exPlanations) and LIME (Local Interpretable Model Agnostic Explanation) were used to interpret the top three ML models.

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**Secondary Subject Areas:**

**Submission Files:**

Comparative Analysis of Interpretable Mushroom Classification using Several Machine Learning Models.pdf (466 Kb, Fri, 09 Sep 2022 14:43:27 GMT)

**Submission Questions Response:**

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