Resource Summary Report

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SHapley Additive ExPlanations

RRID:SCR_021362
Type: Tool

Proper Citation

SHapley Additive ExPlanations (RRID:SCR_021362)

Resource Information

URL: https://github.com/slundberg/shap

Proper Citation: SHapley Additive ExPlanations (RRID:SCR_021362)

Description: Software tool as unified framework for interpreting predictions of machine learning models. Used to explain output of any machine learning model. Connects optimal credit allocation with local explanations using classic Shapley values from game theory and their related extensions.

Abbreviations: SHAP

Resource Type: software resource

Keywords: Interpretable machine learning, interpreting predictions, machine learning models

Funding:

Availability: Free, Available for download, Freely available

Resource Name: SHapley Additive ExPlanations

Resource ID: SCR_021362

License: MIT License

Record Creation Time: 20220129T080355+0000

Record Last Update: 20250420T015117+0000

Ratings and Alerts

No rating or validation information has been found for SHapley Additive ExPlanations.

No alerts have been found for SHapley Additive ExPlanations.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 64 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Chae S, et al. (2025) Developing a clinical decision support framework for integrating predictive models into routine nursing practices in home health care for patients with heart failure. Journal of nursing scholarship : an official publication of Sigma Theta Tau International Honor Society of Nursing, 57(1), 165.

Huang G, et al. (2024) Molecular subtypes of breast cancer identified by dynamically enhanced MRI radiomics: the delayed phase cannot be ignored. Insights into imaging, 15(1), 127.

Wang S, et al. (2024) Academic achievement prediction in higher education through interpretable modeling. PloS one, 19(9), e0309838.

Wang Y, et al. (2024) Prediction of lateral lymph node metastasis with short diameter less than 8 mm in papillary thyroid carcinoma based on radiomics. Cancer imaging : the official publication of the International Cancer Imaging Society, 24(1), 155.

Kim Y, et al. (2024) Machine learning-based 2-year risk prediction tool in immunoglobulin A nephropathy. Kidney research and clinical practice, 43(6), 739.

Darmofal M, et al. (2024) Deep-Learning Model for Tumor-Type Prediction Using Targeted Clinical Genomic Sequencing Data. Cancer discovery, 14(6), 1064.

Rasbach L, et al. (2024) An orchestra of machine learning methods reveals landmarks in single-cell data exemplified with aging fibroblasts. PloS one, 19(4), e0302045.

Ajioka T, et al. (2024) End-to-end deep learning approach to mouse behavior classification from cortex-wide calcium imaging. PLoS computational biology, 20(3), e1011074.

Zhang J, et al. (2024) Exploring deep learning radiomics for classifying osteoporotic vertebral fractures in X-ray images. Frontiers in endocrinology, 15, 1370838.

Vimbi V, et al. (2024) Interpreting artificial intelligence models: a systematic review on the application of LIME and SHAP in Alzheimer's disease detection. Brain informatics, 11(1), 10.

Zhou Q, et al. (2024) A machine learning-derived risk score to predict left ventricular diastolic dysfunction from clinical cardiovascular magnetic resonance imaging. Frontiers in cardiovascular medicine, 11, 1382418.

He Y, et al. (2024) Effects of spatial variability in vegetation phenology, climate, landcover, biodiversity, topography, and soil property on soil respiration across a coastal ecosystem. Heliyon, 10(9), e30470.

He Y, et al. (2024) PredCoffee: A binary classification approach specifically for coffee odor. iScience, 27(6), 110041.

Zhang X, et al. (2024) Development and Validation of Machine Learning Models for Identifying Prediabetes and Diabetes in Normoglycemia. Diabetes/metabolism research and reviews, 40(8), e70003.

Xue T, et al. (2024) Development and validation of an interpretable delta radiomics-based model for predicting invasive ground-glass nodules in lung adenocarcinoma: a retrospective cohort study. Quantitative imaging in medicine and surgery, 14(6), 4086.

Taskiran II, et al. (2024) Cell-type-directed design of synthetic enhancers. Nature, 626(7997), 212.

Allwright M, et al. (2023) Machine learning analysis of the UK Biobank reveals IGF-1 and inflammatory biomarkers predict Parkinson's disease risk. PloS one, 18(5), e0285416.

Sheu YH, et al. (2023) AI-assisted prediction of differential response to antidepressant classes using electronic health records. NPJ digital medicine, 6(1), 73.

Narasimhan R, et al. (2023) Employing Deep-Learning Approach for the Early Detection of Mild Cognitive Impairment Transitions through the Analysis of Digital Biomarkers. Sensors (Basel, Switzerland), 23(21).

Nguyen HT, et al. (2023) Multivariate longitudinal data for survival analysis of cardiovascular event prediction in young adults: insights from a comparative explainable study. BMC medical research methodology, 23(1), 23.