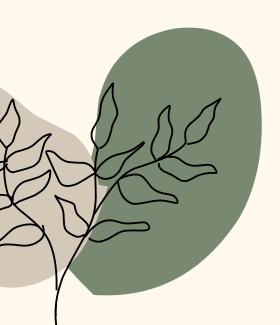


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## introduction

Lung cancer's high mortality rate is largely due to late detection, as symptoms often appear only in advanced stages.

Early, accurate prediction could significantly improve survival rates by allowing timely interventions.

### **Problem Statement**

Traditional lung cancer diagnostics are invasive, costly, and often detect cancer at advanced stages. This project will develop a machine learning model to predict lung cancer likelihood based on patient data, supporting early, non-invasive detection.



# Goals

- Develop a machine learning model for lung cancer prediction based on patient data, focusing on non-invasive factors to facilitate early risk assessment.
- Evaluate different ML algorithms (logistic regression, decision trees, random forest, SVM) to identify the most accurate for lung cancer prediction.
- Integrate the model within a clinical interface or API, enabling easy access and practical application in healthcare settings.
- Contribute to research by sharing insights and findings, enhancing the broader understanding of machine learning's potential in early cancer detection.

#### related work

Machine Learning for Lung
Cancer Diagnosis, Treatment, and
Prognosis

Deep learning for lungs cancer detection: a review

Predicting lung cancer survival based on clinical data using machine learning: A review

