**Rajalakshmi Engineering College**

**Department of Artificial Intelligence & Machine Learning**

**III Year (2025 – 2026) - AI23521: Build and Deployment of ML app**

**Mini Project - Abstract**

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|---|---|---|
| **Title** | PaySense: AI-Powered Salary Prediction | |
| **Team Members** | **Reg. No.**<br>**1.231501104**<br>**2.231501167**<br>**3.231501506** | **Name**<br>**Mounesh Kumaran K R**<br>**Surya Prajin S**<br>**Jashwanth M** |
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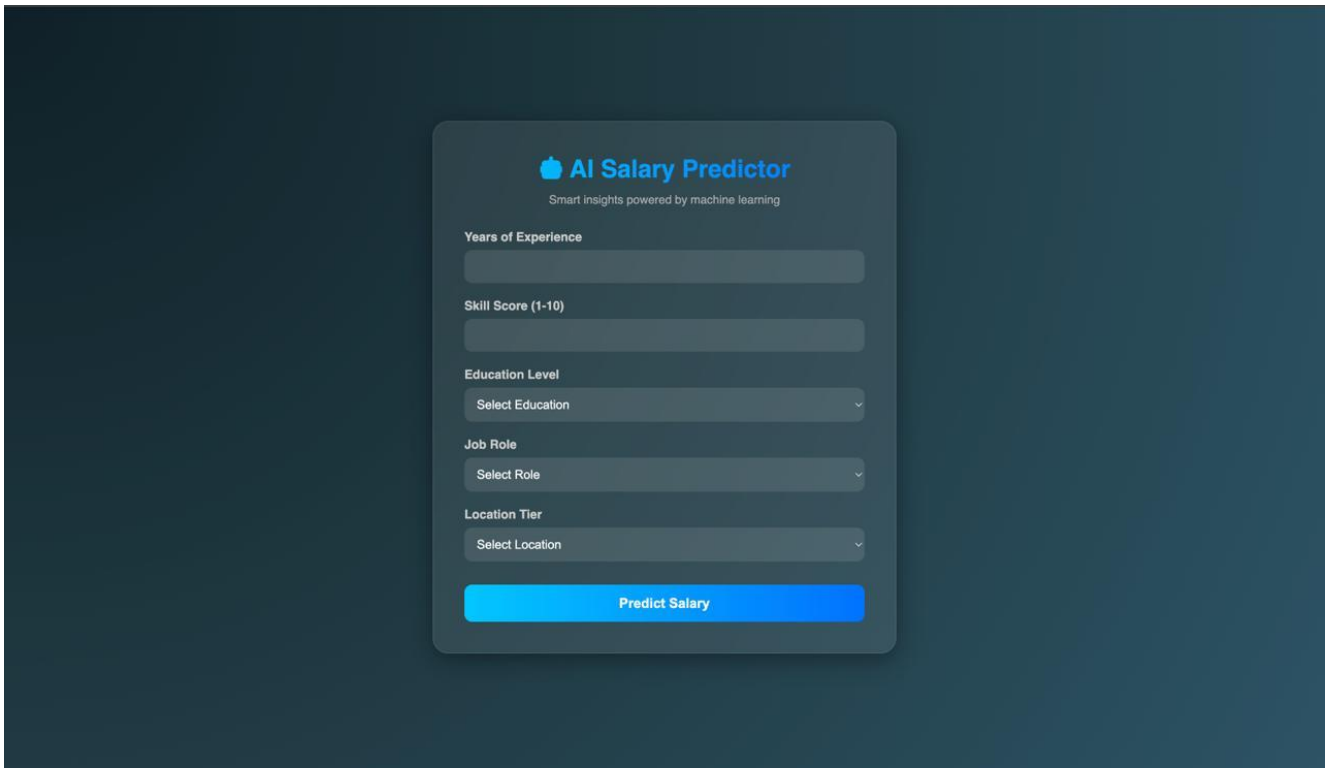
# Abstract

PaySense is an AI-driven system developed to estimate and forecast employee salaries based on a combination of demographic, professional, and organizational features. The system integrates data from multiple sources, including educational background, years of experience, job role, industry type, geographic location, and company size. Raw data undergo preprocessing steps such as outlier detection, missing value imputation, categorical encoding, and normalization to ensure consistency and model readiness. Feature engineering techniques are applied to extract meaningful attributes and capture non-linear relationships between predictors and salary outcomes. Advanced machine learning algorithms—including regression models, ensemble methods, and neural networks—are trained and evaluated to achieve high predictive accuracy. Dimensionality reduction methods such as PCA and SHAP-based interpretability tools are employed to enhance transparency and understand feature importance. PaySense provides a data-driven, objective, and scalable framework for compensation analysis, enabling organizations to design fair pay structures and helping individuals estimate market-aligned salaries. The system emphasizes both accuracy and explainability, promoting ethical and informed decision-making in workforce management.

# Output


AI Salary Predictor
Smart insights powered by machine learning
Years of Experience
Skill Score (1-10)
Education Level
Select Education
Job Role
Select Role
Location Tier
Select Location
Predict Salary