CAPSTONE PROJECT

House Price Prediction with Deep Learning

Final Project

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PROJECT TITLE

Predicting house prices accurately is crucial for home buyers, sellers, and real estate professionals. This presentation will explore how deep learning can be leveraged to create powerful, data-driven house price prediction models.

AGENDA

1. Problem Statement
2. Project Overview
3. End Users
4. Solution and Value Proposition
5. The Wow Factor in Your Solution
6. Modelling
7. Results

PROBLEM STATEMENT

- Problem: Traditional methods often fail to capture nonlinear relationships and intricate patterns in housing data.
- Challenge: Predicting house prices accurately requires handling diverse features such as area size, number of bedrooms, location, etc.
- Objective: Develop a deep learning model capable of accurately predicting house prices based on various features.

PROJECT OVERVIEW

- Objective: Develop a deep learning model that can accurately predict house prices based on various features and market data.
- Approach: Collect and preprocess comprehensive housing data, design a neural network architecture, train and optimize the model.
- Expected Outcomes: A robust, scalable house price prediction system that outperforms traditional methods and provides valuable insights.

WHO ARE THE END USERS?

- Home Buyers: Get accurate estimates to make informed purchasing decisions.
- Home Sellers: Price their homes competitively to attract buyers and maximize returns.
- Real Estate Professionals: Leverage the model to provide superior advisory services to clients.
- Researchers: Analyze housing market trends and factors influencing prices.

YOUR SOLUTION AND ITS VALUE PROPOSITION

- Accurate Predictions: Our deep learning model leverages advanced algorithms to provide highly accurate house price estimates.
- Customizable Features: Users can input specific property details to get personalized price predictions.
- Scalable and Efficient: The system can handle large datasets and provide real-time predictions at scale.

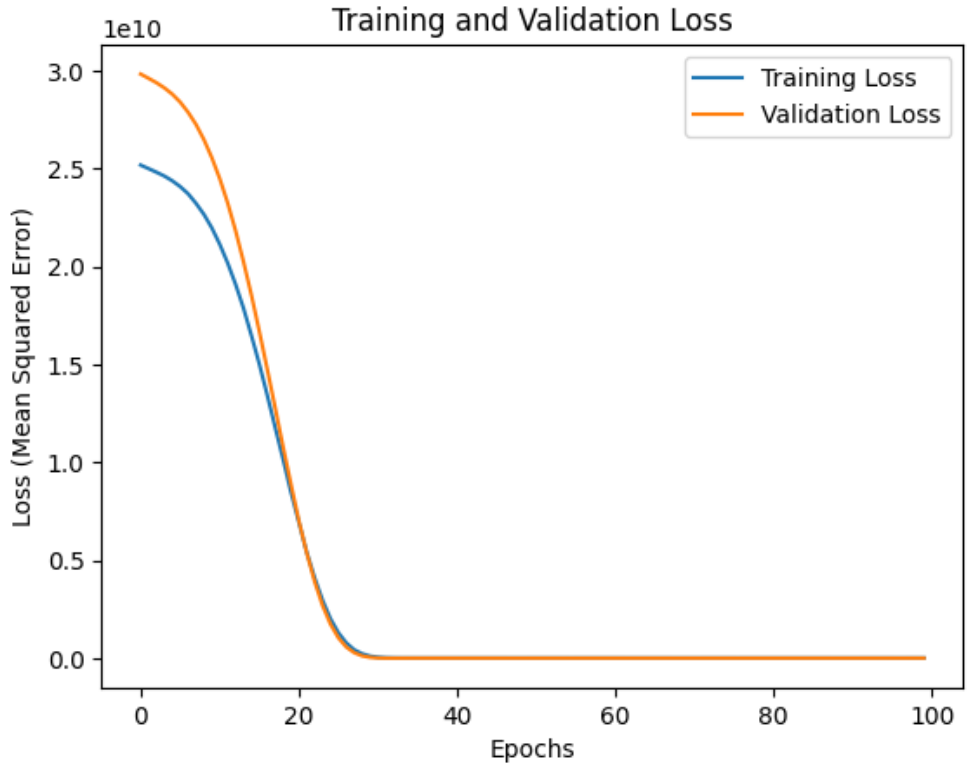
THE WOW IN YOUR SOLUTION

- Cutting-Edge AI: Our solution leverages state-of-the-art deep learning algorithms to achieve unprecedented accuracy.
- Intuitive Interface: The user-friendly platform makes it easy for anyone to access the powerful price prediction capabilities.
- Continuous Learning: The model continuously learns and improves, adapting to changing market conditions and trends.

MODELLING

- Input Features: Property details, location, market data, economic indicators.
- Neural Network Architecture: Multilayer perceptron with dropout, batch normalization, and other advanced techniques.
- Training Data: Comprehensive historical housing records from multiple sources.
- Evaluation Metrics: Mean Absolute Error, R-squared, and other regression performance metrics.

RESULTS



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