# MLP for Stock Return Prediction

**Input Layer**

(Financial Features)

**Hidden 1**

(8 neurons, ReLU)

**Hidden 2**

(4 neurons, ReLU)

**Output**

(Predicted Return)

$Returns_{t-1}$

(Past returns)

$Returns_{t-5}$

(5-day return)

Volume

(Trading volume)

Volatility

(Price volatility)

P/E Ratio

(Valuation)

Momentum

(Price trend)

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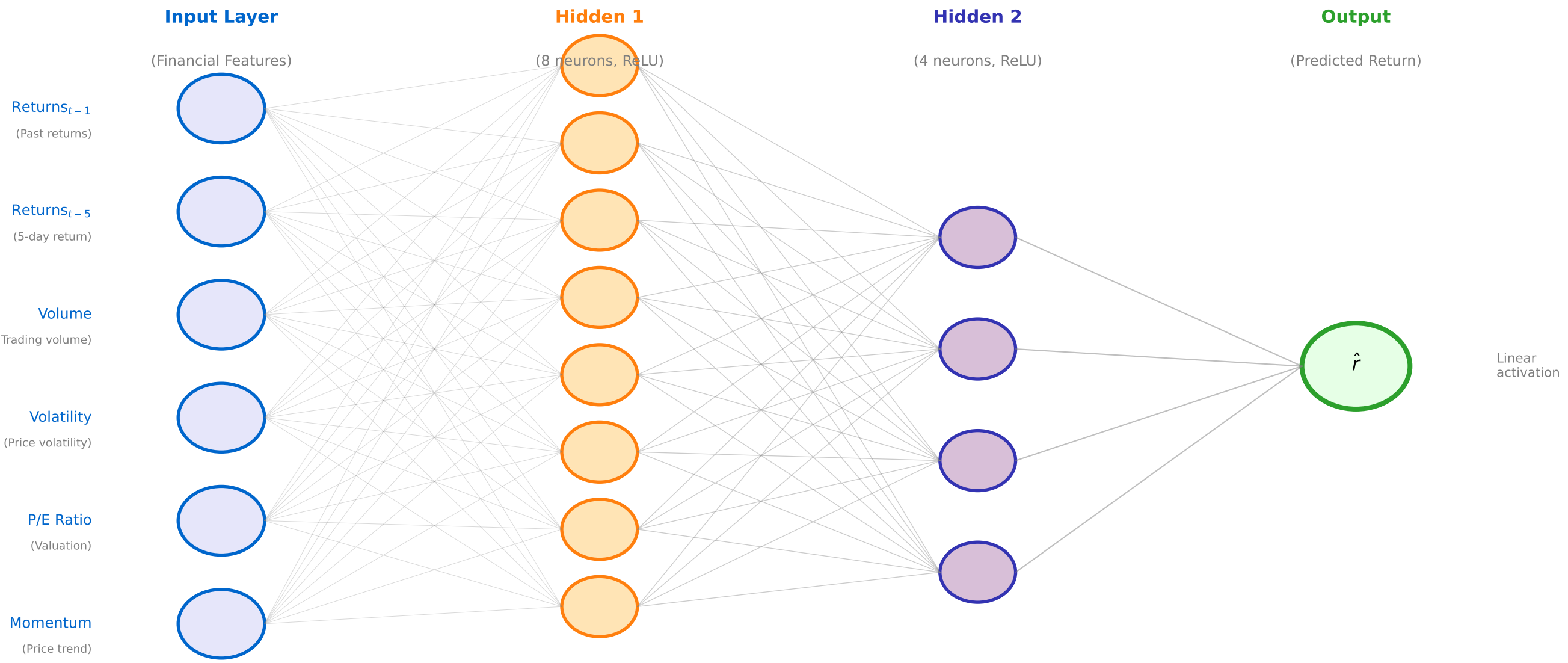Linear activation



Architecture Summary:
- Input: 6 financial features (normalized)
- Hidden 1: 8 neurons with ReLU
- Hidden 2: 4 neurons with ReLU
- Output: 1 (predicted return)
- Loss: Mean Squared Error
- Total parameters: 6x8 + 8 + 8x4 + 4 + 4x1 + 1 = 97