

# DAFTAR ISI

Hlm.

LEMBAR PERSETUJUAN	
LEMBAR PENGESAHAN	
LEMBAR PERNYATAAN KARYA SENDIRI	
LEMBAR PERSEMBAHAN .....	i
ABSTRAK.....	ii
ABSTRACT .....	iii
KATA PENGANTAR.....	iv
DAFTAR ISI.....	vi
DAFTAR GAMBAR.....	ix
DAFTAR TABEL .....	xi
<b>BAB I PENDAHULUAN</b> .....	<b>1</b>
1.1 Latar Belakang .....	1
1.2 Rumusan Masalah .....	6
1.3 Tujuan Penelitian.....	6
1.4 Manfaat Penelitian.....	6
1.5 Batasan Masalah.....	7
1.6 Kerangka Pemikiran .....	8
1.7 Metodologi Penelitian .....	9
1.7.1 Teknik Pengumpulan Data.....	9
1.7.2 Metode Pengembangan.....	9
1.8 Sistematika Penulisan .....	10
<b>BAB II STUDI PUSTAKA</b> .....	<b>12</b>
2.1 Tinjauan Pustaka.....	12
2.2 Landasan Teori .....	19
2.2.1 Prediksi .....	19
2.2.2 Cabai Rawit .....	22
2.2.3 <i>Deep Learning</i> .....	22
2.2.4 <i>Recurrent Neural Network (RNN)</i> .....	23
2.2.5 <i>Cross-Industry Standard Process for Data Mining</i> .....	24
2.2.6 <i>Long Short Term Memory (LSTM)</i> .....	26
2.2.6 <i>Stack LSTM</i> .....	31
2.2.7 <i>Bidirectional LSTM</i> .....	32

2.2.8	<i>Data Time Series</i> .....	33
2.2.9	<i>Javascript</i> .....	33
2.2.10	<i>Preprocessing Data</i> .....	33
2.2.11	<i>Root Mean Squared Error (RMSE)</i> .....	34
2.2.12	<i>Flowchart</i> .....	35
2.2.13	<i>Data Flow Diagram (DFD)</i> .....	36
<b>BAB III METODOLOGI PENELITIAN</b> .....		<b>38</b>
3.1	<i>Business Understanding</i> .....	39
3.2	<i>Data Understanding</i> .....	39
3.3	<i>Data Preparation</i> .....	40
3.3.1	<i>Pembagian Data</i> .....	40
3.3.2	<i>Data Cleaning</i> .....	40
3.3.3	<i>Data Transformation</i> .....	42
3.4	<i>Modelling</i> .....	44
3.4.1	<i>Vanilla LSTM</i> .....	44
3.4.2	<i>Stack LSTM</i> .....	46
3.4.3	<i>Bidirectional LSTM (BiLSTM)</i> .....	48
<b>BAB IV HASIL DAN PEMBAHASAN</b> .....		<b>51</b>
4.1	<i>Evaluasi</i> .....	51
4.1.1	<i>Pengujian Model Vanilla LSTM</i> .....	51
4.1.2	<i>Pengujian Model Stack LSTM</i> .....	59
4.1.3	<i>Pengujian Model Bidirectional LSTM</i> .....	65
4.2	<i>Deployment</i> .....	72
4.2.1	<i>Analisis Kebutuhan Perangkat</i> .....	72
4.2.2	<i>Flowchart Sistem</i> .....	73
4.2.3	<i>Context Diagram</i> .....	74
4.2.4	<i>DFD Level 1</i> .....	75
4.2.5	<i>DFD Level 2 Persiapan Data</i> .....	76
4.2.6	<i>DFD Level 2 Modelling</i> .....	77
4.2.7	<i>DFD Level 2 Evaluasi Vanilla Model</i> .....	78
4.2.8	<i>DFD Level 2 Evaluasi Stack LSTM Model</i> .....	79
4.2.9	<i>DFD Level 2 Evaluasi Bidirectional LSTM Model</i> .....	80
4.2.10	<i>Spesifikasi Proses (P-Spec)</i> .....	81
4.2.11	<i>Kamus Data (Data Dictionary)</i> .....	104
4.2.12	<i>User Interface</i> .....	128
4.2.13	<i>Pengujian Sistem</i> .....	132

<b>BAB V PENUTUP .....</b>	<b>135</b>
<b>5.1 Kesimpulan .....</b>	<b>135</b>
<b>5.2 Saran .....</b>	<b>136</b>
<b>DAFTAR PUSTAKA.....</b>	<b>137</b>
<b>LAMPIRAN .....</b>	<b>140</b>
<b>DAFTAR RIWAYAT HIDUP.....</b>	<b>160</b>

