

## DAFTAR ISI

HALAMAN PENGESAHAN.....	iii
PERNYATAAN.....	iv
HALAMAN MOTTO DAN PERSEMBAHAN.....	v
PRAKATA.....	vi
DAFTAR ISI.....	viii
DAFTAR TABEL.....	xi
DAFTAR GAMBAR.....	xii
DAFTAR LAMPIRAN.....	xiv
INTISARI.....	xv
ABSTRACT.....	xvi
BAB I PENDAHULUAN.....	1
1.1 Latar Belakang.....	1
1.2 Rumusan Masalah.....	3
1.3 Batasan Masalah.....	3
1.4 Tujuan Penelitian.....	4
1.5 Manfaat Penelitian.....	4
1.6 Sistematika Penulisan.....	5
BAB II TINJAUAN PUSTAKA.....	6
BAB III LANDASAN TEORI.....	9
3.1 League of Legends ( LOL ).....	9
3.1.1 LOL Gameplay.....	9
3.1.2 Kategori dan Jenis Champion.....	11
3.1.3 RIOT API.....	18
3.2 Supervised Learning.....	19
3.2.1 Naive Bayes.....	19
3.2.2 Decision Tree.....	20
3.2.3 Random Forest.....	22
3.2.4 Adaptive Boosting.....	23
3.3 Data Preprocessing.....	24
3.3.1 Feature Extraction.....	24
3.3.2 One Hot Encoding.....	24

3.3.3	Binarisasi .....	25
3.3.4	Seleksi Fitur .....	25
3.4	K-Fold Cross Validation .....	26
3.5	Evaluasi Model .....	28
3.5.1	<i>Accuracy</i> .....	28
3.5.2	<i>Precision</i> .....	29
3.5.3	<i>Recall</i> .....	29
3.5.4	<i>f-Measure</i> .....	29
<b>BAB IV METODE PENELITIAN .....</b>		<b>30</b>
4.1	Analisis Sistem .....	30
4.2	Rancangan Data .....	31
4.2.1	Pengumpulan Data .....	32
4.2.2	Praproses Data .....	33
4.2.3	Konversi Champion ID menjadi Champion Number .....	35
4.2.4	Rancangan Praproses : Champion Feature Vector .....	35
4.2.5	Rancangan Praproses Fitur : Rating .....	36
4.2.6	Rancangan Praproses: Fitur Attack Type, Damage Type dan Class .....	37
4.2.7	Rancangan Praproses : Fitur Winrate .....	38
4.3	Rancangan Klasifikasi .....	38
4.4	Rancangan Pengujian .....	39
4.4.1	Pemilihan Model .....	41
4.4.2	Pelatihan Model .....	41
4.4.3	Pengujian Model .....	41
<b>BAB V IMPLEMENTASI .....</b>		<b>43</b>
5.1	Spesifikasi Hardware dan Software .....	43
5.2	Pembentukan Dataset Awal .....	43
5.3	Konversi Champion ID menjadi Champion Number .....	47
5.4	Implementasi Praproses Data .....	50
5.4.1	Fitur Attack Type .....	50
5.4.2	Fitur Damage Type .....	51
5.4.3	Fitur Class .....	53
5.4.4	Fitur Ratings .....	54

5.4.5	Fitur Winrate .....	56
5.4.6	Fitur Vektor Champion Number .....	57
5.4.7	Fitur Vektor Ratings .....	58
5.5	Pemilihan Model.....	59
5.5.1	Bernoulli Naive Bayes.....	60
5.5.2	Decision Tree.....	60
5.5.3	Random Forest Classifier .....	61
5.6	Pelatihan Model.....	62
5.6.1	Pendefinisian Dataset .....	62
5.6.2	Seleksi Fitur.....	63
5.6.3	Model Bernoulli Naive Bayes .....	65
5.6.4	Model Decision Tree .....	65
5.6.5	Model Random Forest .....	66
5.6.6	Boosting Naive Bayes & Decision Tree.....	66
5.7	Pengujian Model.....	68
BAB VI HASIL DAN PEMBAHASAN .....		70
6.1	Pemilihan Model.....	70
6.2	Pengujian Akurasi Fitur Praproses .....	71
6.3	Pengujian Akurasi Fitur Praproses Terseleksi .....	73
6.4	Pembahasan .....	75
BAB VII KESIMPULAN .....		77
7.1	Kesimpulan.....	77
7.2	Saran .....	77
DAFTAR PUSTAKA .....		79
LAMPIRAN.....		81