

## DAFTAR ISI

|                                                 |      |
|-------------------------------------------------|------|
| LEMBAR PENGESAHAN .....                         | ii   |
| LEMBAR ORISINALITAS .....                       | iii  |
| ABSTRAK .....                                   | iv   |
| ABSTRACT .....                                  | v    |
| KATA PENGANTAR .....                            | vi   |
| UCAPAN TERIMA KASIH .....                       | vii  |
| DAFTAR ISI .....                                | ix   |
| DAFTAR GAMBAR .....                             | xii  |
| DAFTAR TABEL .....                              | xiii |
| BAB 1 PENDAHULUAN .....                         | 1    |
| 1.1. Latar Belakang .....                       | 1    |
| 1.2. Rumusan Masalah .....                      | 3    |
| 1.3. Tujuan dan Manfaat .....                   | 4    |
| 1.4. Batasan masalah .....                      | 4    |
| 1.5. Metode Penelitian .....                    | 5    |
| 1.6. Jadwal Pelaksanaan .....                   | 6    |
| BAB 2 TINJAUAN PUSTAKA .....                    | 7    |
| 2.1. Tinjauan Pustaka .....                     | 7    |
| 2.2. Landasan Teori .....                       | 12   |
| 2.2.1. Penyakit Udang Vannamei .....            | 12   |
| 2.2.2. Deep Learning .....                      | 14   |
| 2.2.3. Convolutional Neural Network (CNN) ..... | 15   |
| 2.2.4. Visual Geometry Group (VGG16) .....      | 19   |

|                                                |           |
|------------------------------------------------|-----------|
| 2.2.5. Transfer Learning.....                  | 20        |
| 2.2.6. Optimizer.....                          | 20        |
| 2.2.7. Confusion Matrix .....                  | 23        |
| 2.2.8. Streamlit.....                          | 25        |
| <b>BAB 3 PERANCANGAN SISTEM .....</b>          | <b>26</b> |
| 3.1. Desain Perancangan Sistem .....           | 26        |
| 3.2. Desain Perangkat Keras dan Lunak .....    | 26        |
| 3.3. Diagram Blok .....                        | 27        |
| 3.4. Pengumpulan Dataset.....                  | 27        |
| 3.5. Pengolahan Data.....                      | 29        |
| 3.5.1. Pra-pemrosesan .....                    | 29        |
| 3.5.2. Pembagian Dataset .....                 | 30        |
| 3.6. Perancangan Model.....                    | 30        |
| 3.7. Pengujian dan Evaluasi Model.....         | 31        |
| 3.8. Analisis Hasil .....                      | 31        |
| 3.8. Implementasi .....                        | 32        |
| <b>BAB 4 HASIL PERCOBAAN DAN ANALISIS.....</b> | <b>33</b> |
| 4.1. Skenario Percobaan.....                   | 33        |
| 4.1.1 Skenario 1 .....                         | 33        |
| 4.1.2. Skenario 2 .....                        | 34        |
| 4.2. Hasil Percobaan.....                      | 34        |
| 4.2.1. Hasil Percobaan I .....                 | 35        |
| 4.2.2. Hasil Percobaan 2.....                  | 37        |
| 4.3. Analisis.....                             | 46        |
| 4.4. Implementasi .....                        | 48        |

|                                          |    |
|------------------------------------------|----|
| 4.4.1. Perancangan Interface .....       | 48 |
| 4.4.2. Desain Interface .....            | 49 |
| 4.4.3. Proses Klasifikasi Interface..... | 50 |
| BAB 5 KESIMPULAN DAN SARAN .....         | 51 |
| 5.1. Kesimpulan .....                    | 51 |
| 5.2. Saran.....                          | 52 |
| DAFTAR PUSTAKA .....                     | 53 |
| LAMPIRAN.....                            | 58 |