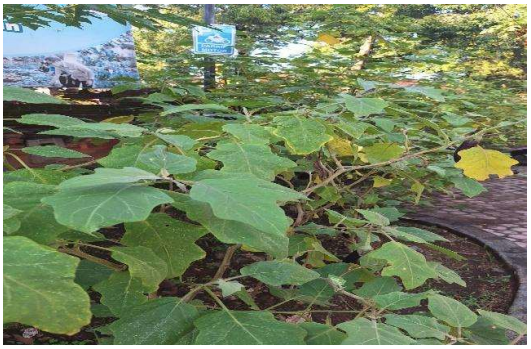
LAMPIRAN

Lampiran 1. Wawancara Bersama Dinas Pertanian Kabupaten Buleleng

Dokumentasi Wawancara bersama Bapak Wayan Suarsana (Dinas Pertanian Buleleng)



Dokumentasi Kebun Terong Dinas Pertanian

Dokumentasi Kebun milik BPP Sukasada

Lampiran 2. Code Arsitektur VGG19

```
# ============================================================
# CONFIG
# ============================================================
img_size = (224, 224)
channels = 3
img_shape = (img_size[0], img_size[1], channels)
class_count = len(train_gen.class_indices)
print(f"Jumlah kelas: {class_count}")
# ============================================================
```

```
# LOAD VGG19 (PRETRAINED)
# ============================================================
vgg_base = VGG19(
    include_top=False,
    weights='imagenet',
    input_shape=img_shape
)
# Freeze awal
vgg_base.trainable = False
# Fine-Tunning
for layer in vgg_base.layers[-4:]:
    layer.trainable = True
# ============================================================
# MODEL ARCHITECTURE
# ============================================================
input_layer = Input(shape=img_shape)
# Feature Extractor
x = vgg_base(input_layer)
x = GlobalAveragePooling2D()(x)
x = BatchNormalization()(x)
# Fully Connected Layers
x = Dense(256, activation='relu')(x)
x = Dropout(0.3)(x
x = Dense(128, activation='relu')(x)
x = Dropout(0.3)(x)
output_layer = Dense(class_count, activation='softmax')(x)

model = Model(inputs=input_layer, outputs=output_layer)
# ============================================================
# COMPILE
# ============================================================
model.compile(
    optimizer=Adam(learning_rate=1e-4),
    loss='categorical_crossentropy',
    metrics=['accuracy']
```

```
)
model.summary()
# ============================================================
# CALLBACKS
# ============================================================
early_stopping = EarlyStopping(
    monitor='val_loss',
    patience=7,
    restore_best_weights=True,
    verbose=1)
# ============================================================
# TRAIN
# ============================================================
print("Mulai Training VGG19...")
history = model.fit(
    train_gen,
    validation_data=val_gen,
    epochs=50,
    callbacks=[early_stopping],
    verbose=1)
```

Lampiran 3. Code Arsitektur InceptionV3

```
# ============================================================
# CONFIG
# ============================================================
img_size = (299, 299)
channels = 3
img_shape = (img_size[0], img_size[1], channels)
class_count = len(train_gen.class_indices)
print(f"Jumlah kelas: {class_count}")
# ============================================================
# LOAD INCEPTIONV3 (PRETRAINED)
# ============================================================
```

```
inception_base = InceptionV3(
    include_top=False,
    weights='imagenet',
    input_shape=img_shape)
# Freeze dulu
inception_base.trainable = False
# Fine-tuning
for layer in inception_base.layers[-20:]:
    layer.trainable = True
# ============================================================
# MODEL ARCHITECTURE
# ============================================================
input_layer = Input(shape=img_shape)
# Feature Extractor
x = inception_base(input_layer)
x = GlobalAveragePooling2D()(x)
x = BatchNormalization()(x)
# Fully Connected Layers
x = Dense(256, activation='relu')(x)
x = Dropout(0.3)(x)
x = Dense(128, activation='relu')(x)
x = Dropout(0.3)(x)
output_layer = Dense(class_count, activation='softmax')(x)
# ============================================================
# COMPILE
# ============================================================
model.compile(
    optimizer=Adam(learning_rate=5e-4),
    loss='categorical_crossentropy',
    metrics=['accuracy'])
model.summary()
# ============================================================
# CALLBACKS
# ============================================================
early_stopping = EarlyStopping(
```

```
    monitor='val_loss',
    patience=7,
    restore_best_weights=True,
    verbose=1)
# ============================================================
# TRAIN
# ============================================================
print("Mulai Training...")
history = model.fit(
    train_gen,
    validation_data=val_gen,
    epochs=50,
    callbacks=[early_stopping],
    verbose=1)
```

RIWAYAT HIDUP

Penulis bernama lengkap Ketut Rega Arunika, lahir di Singaraja pada tanggal 8 Februari 2004. Ia merupakan seorang warga negara Indonesia beragama Hindu yang kini menetap di kawasan Jalan Pulau Menjangan, Banyuning Selatan, Bali. Seluruh riwayat pendidikan dasar hingga menengah penulis ditempuh di kota kelahirannya, dimulai dari SD Negeri 1 Banyuning (lulus 2016), SMP Negeri 6 Singaraja (lulus 2019), hingga SMA Negeri 4 Singaraja (lulus 2022). Sejak tahun 2022, penulis mendedikasikan diri sebagai mahasiswa program sarjana pada Program Studi Ilmu Komputer di Universitas Pendidikan Ganesha, dan saat ini sedang merampungkan tugas akhir skripsinya.