

# Food Recipe Generator - Training Commands

## V1 Training

VERSION 1: Initial Training (Overfitting)

=====

Command:

```
cd "c:\Users\91638\Desktop\Capstone Sux\inversecooking\src"
python train_combined_model.py
```

Configuration:

- Batch Size: 32
- Epochs: 40
- Learning Rate: 0.001
- Weight Decay: 0.0001
- Dropout: 0.3

Results:

- Training Accuracy: 96.2%
- Validation Accuracy: 65.5%
- Gap: +32% (OVERFITTING)
- Time: ~36 minutes

## V2 Training

VERSION 2: Heavy Regularization (Underfitting)

=====

Command:

```
python train_combined_v2.py
```

Configuration:

- Batch Size: 16
- Epochs: 30
- Learning Rate: 0.00005
- Weight Decay: 0.01 (10x more)
- Dropout: 0.5
- Strong Data Augmentation

Results:

- Training Accuracy: 34.2%
- Validation Accuracy: 45.6%
- Gap: -13% (UNDERFITTING)
- Time: ~25 minutes

## Food Recipe Generator - Training Commands

### V3 Training

VERSION 3: Balanced Approach

=====

Command:

```
python train_combined_v3.py
```

Configuration:

- Batch Size: 16
- Epochs: 40
- Learning Rate: 0.0001
- Weight Decay: 0.005
- Dropout: 0.35
- Moderate Augmentation

Results:

- Training Accuracy: 79.1%
- Validation Accuracy: 63.6%
- Gap: +15.5% (Slight Overfitting)
- Time: ~20 minutes

### Final Model Training

FINAL MODEL: Large Dataset

=====

Command:

```
python train_large_model.py
```

Configuration:

- Batch Size: 32
- Epochs: 25
- Learning Rate: 0.001
- Weight Decay: 0.0001
- Dropout: 0.25
- Architecture: EfficientNet-B0

Training Output:

[Warmup 1] Train: 30.6% | Val: 46.2%

[Warmup 2] Train: 35.8% | Val: 50.9%

[Warmup 3] Train: 37.4% | Val: 51.3%

...

[25/25] Train: 87.2% | Val: 84.8% | Gap: +2.5%

## Food Recipe Generator - Training Commands

Results:

- Training Accuracy: 87.2%
- Validation Accuracy: 84.8%
- Gap: +2.5% (PERFECT!)
- Time: ~8.5 hours (515 minutes)