

## Training

Writings of Enrolled Users  
e.g., 90 seconds Input

Outlier Elimination

Word Segmentation

Sample Generation

### Data Processing

Frame-Level Feature

Component-Level Feature

Vocabulary of  
Primitives

Sample-Level Feature

### 3-Level Feature Extraction \*\*

SVM  
Training

SVM  
Model(s)

Label: User  
Identity

### User Identification

## Testing

Writings of Testing Users  
e.g., 5 seconds Input

Outlier Elimination

Word Segmentation

Sample Generation

Frame-Level Feature

Component-Level Feature

Sample-Level Feature

SVM  
Classification

User Identity

