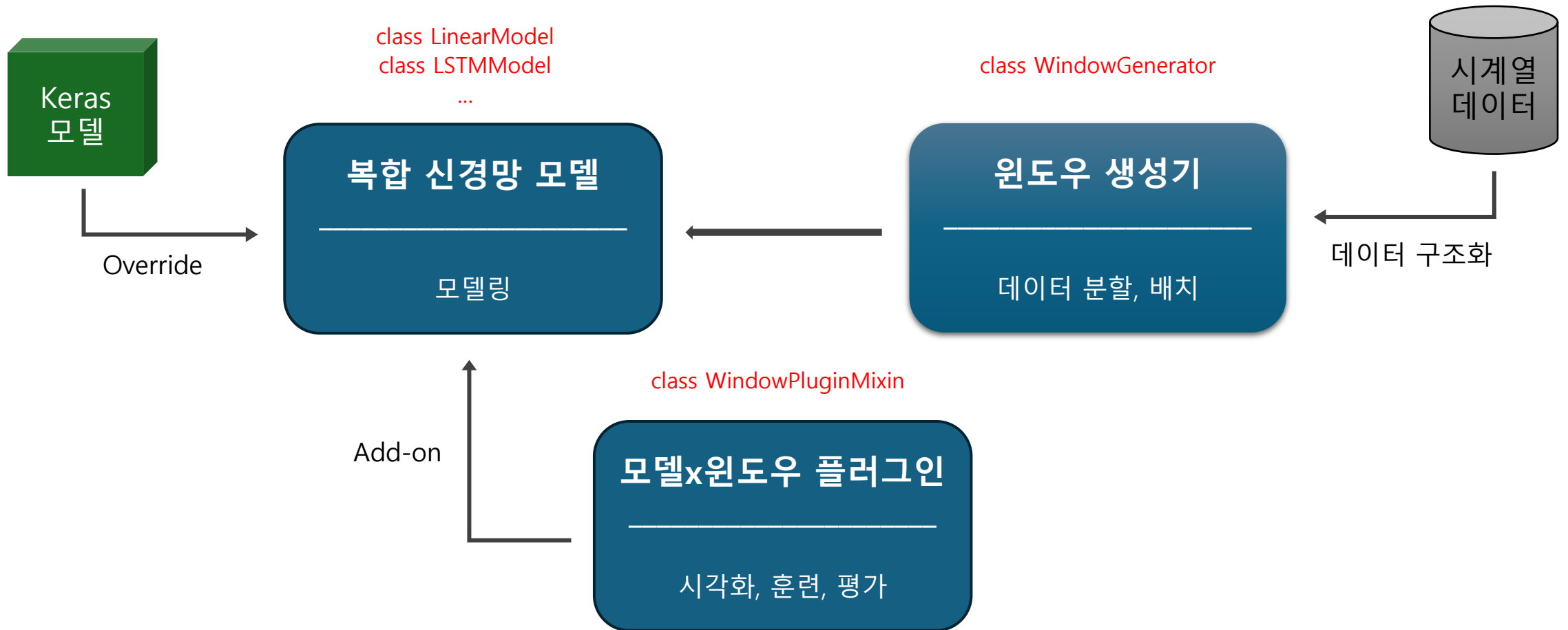


# 데이터 사이언스 실무

제 14강. 딥러닝 시계열 예측 모델링

곽지호

# 시계열 DL 엔지니어링 아키텍처

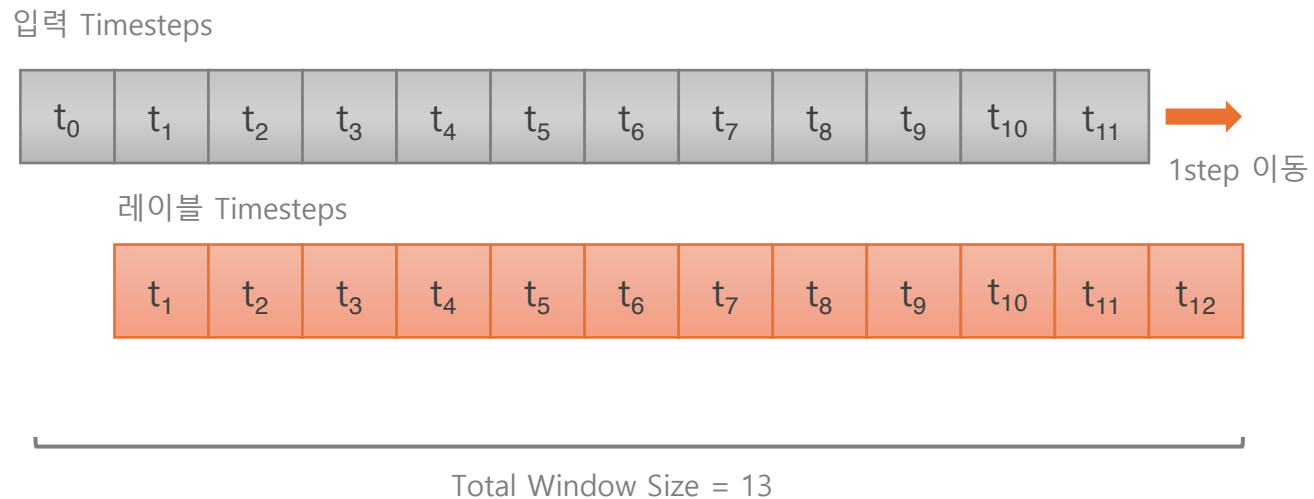


# 윈도우 생성 구조(1)

## 예시1. 1Step - 1Label - 1Shift 윈도우

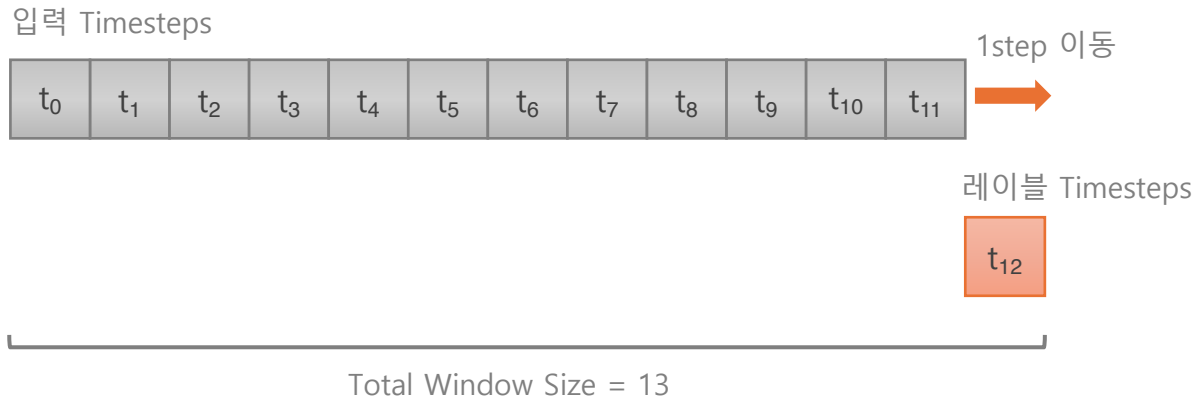


## 예시2. 12Step - 12Label - 1Shift 윈도우

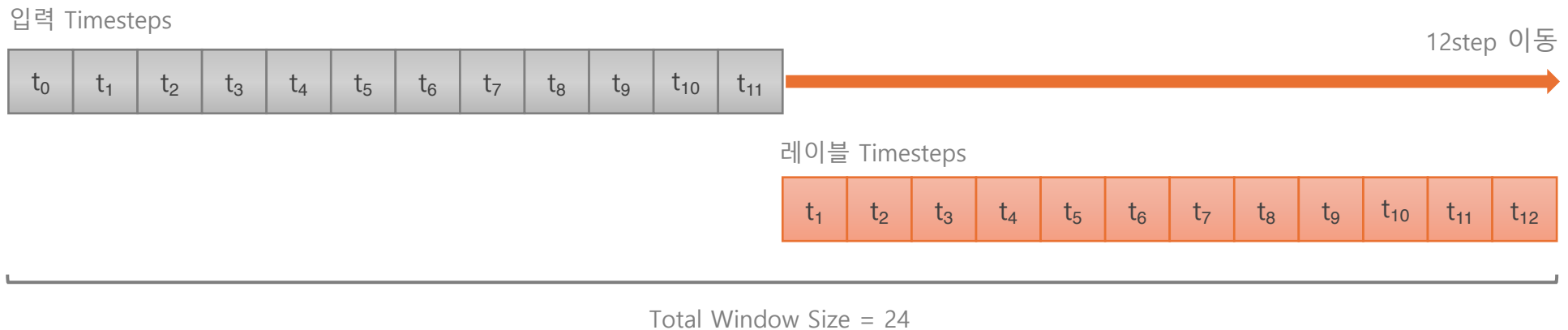


# 윈도우 생성 구조(2)

## 예시3. 12Step - 1Label - 1Shift 윈도우



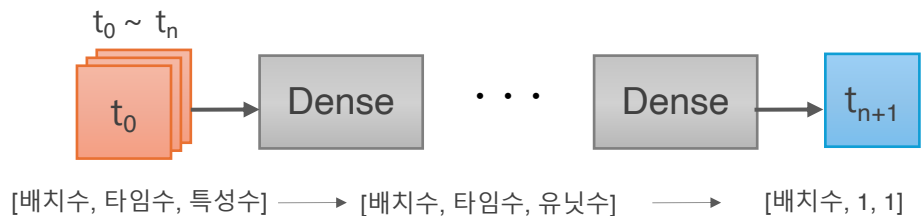
## 예시4. 12Step - 12Label - 12Shift 윈도우



# 단일스텝 예측모델

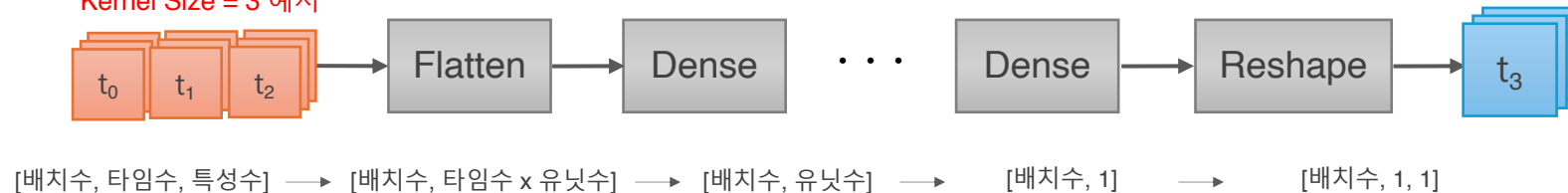
필요 입력 윈도우 :  $N_{\text{step}} - 1$  Label - 1 Shift

## FC 모델



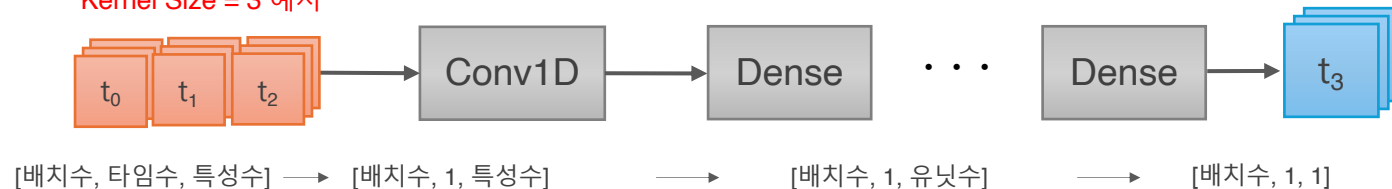
## 컨볼루셔널 FC 모델

Kernel Size = 3 예시

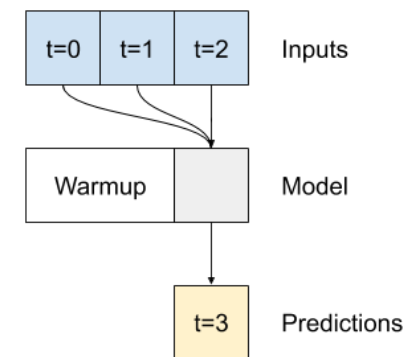


## CNN 모델

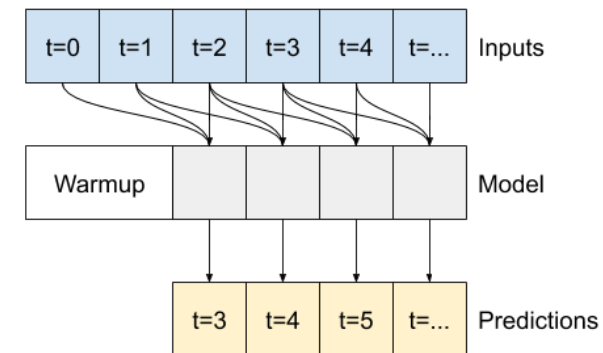
Kernel Size = 3 예시



## 컨볼루셔널 FC 모델



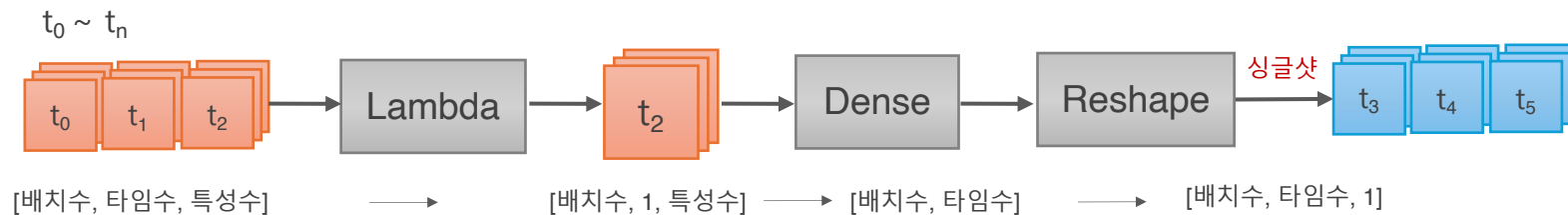
## CNN 모델



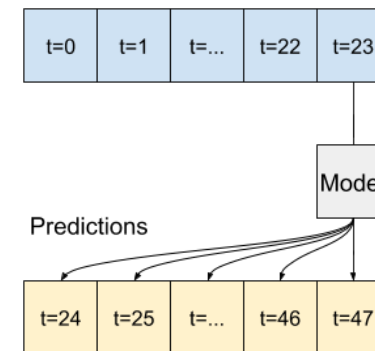
# 멀티스텝 예측모델

필요 입력 윈도우 :  $N_{\text{step}} - M_{\text{Label}} - M_{\text{Shift}}$

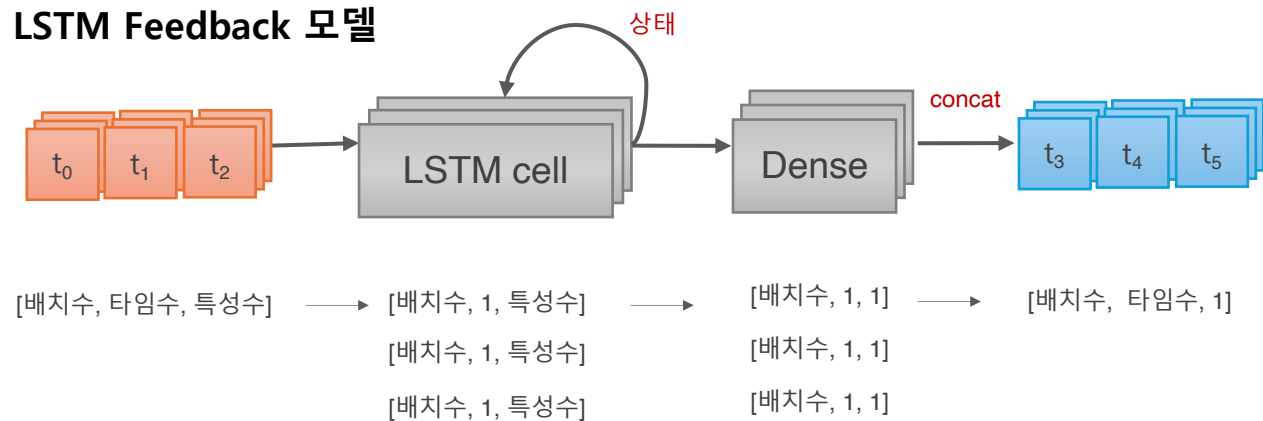
## 싱글샷 선형 모델



## 싱글샷 선형 모델



## LSTM Feedback 모델



## LSTM 피드백 모델

