

z-score -> create
labels after T
ticks -> CNN
3-day data
(bid*10, ask*10, price*
10, volume*10)

sampling before normalization

Because of limited memory, we
downsampled the data sequence by a factor
of 3.

The size of our first convolutional filter is (1
 \times 2) with stride of (1 \times 2). The first layer
essentially summarises information
between price and volume.

rearrange the columns after
sampling (let prices and volumes
at the same level close to each
other)

change in best level after
normalization (no sampling
needed as the size is small after
selection)

爬头 We wanted to find ticks that contains
more information and save memory.

add an extra layer

increase filter size (larger stride)

Add more features (first order
derivatives)

After T ticks is not executable
and reasonable. It is not
necessary to make actions after
a certain period of time...