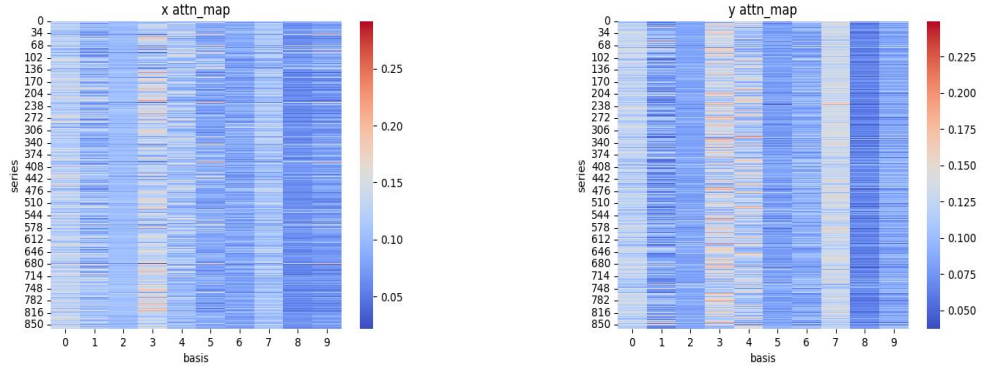
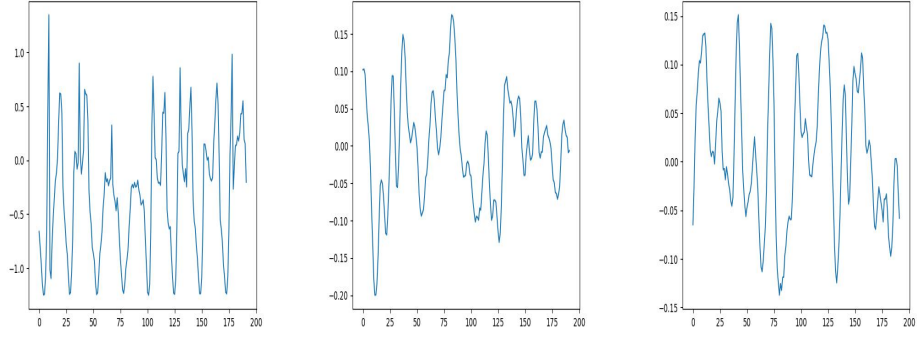




(a) attention map in the past

(b) attention map in the future

Figure R1: Attention maps from past and future perspectives for the same head.



(a) series

(b) basis with low attention score

(c) basis with high attention score

Figure R2: A time series and the corresponding bases with higher and lower attention scores.

Table R1: Comparison between Basisformer and Cost.

Models		Basisformer		Cost	
Metric		MSE	MAE	MSE	MAE
ETT	96	0.184	0.266	0.280	0.375
	192	0.248	0.307	0.480	0.506
	336	0.321	0.355	0.805	0.676
	720	0.410	0.404	1.562	0.955
electricity	96	0.165	0.259	0.199	0.290
	192	0.178	0.272	0.199	0.292
	336	0.189	0.282	0.212	0.307
	720	0.223	0.311	0.246	0.338
exchange	96	0.085	0.205	0.263	0.393
	192	0.177	0.299	0.464	0.521
	336	0.336	0.421	0.833	0.691
	720	0.854	0.670	1.192	0.871
traffic	96	0.444	0.315	0.576	0.377
	192	0.460	0.316	0.546	0.359
	336	0.471	0.317	0.555	0.363
	720	0.486	0.318	0.591	0.379
weather	96	0.173	0.214	0.372	0.415
	192	0.223	0.257	0.528	0.517
	336	0.278	0.298	0.835	0.666
	720	0.355	0.347	1.394	0.894
illness	96	1.550	0.814	2.330	0.923
	192	1.516	0.819	2.497	0.962
	336	1.877	0.907	2.650	1.032
	720	1.878	0.902	2.829	1.062