

Two Sigma Financial Modeling Challenge

Станислав Семёнов

2016

Постановка задачи

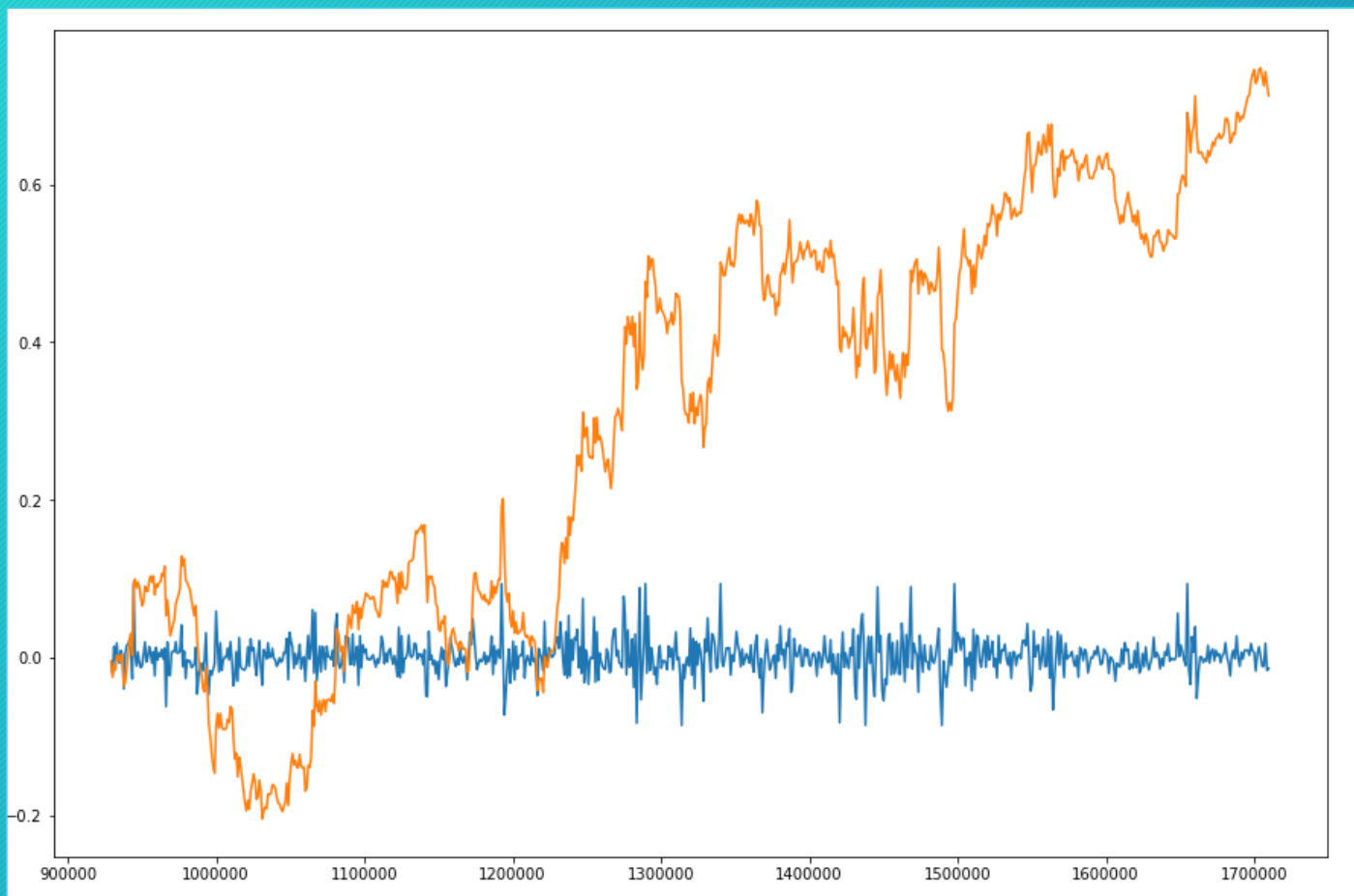
- Все признаки обфусцированы:
- derived_x - 5
- fundamental_x - 63
- technical_x- 40
- id, ts
- Метрика задачи:

$$R^2 = 1 - \frac{\sum_i (y_i - \hat{y}_i)^2}{\sum_i (y_i - \mu)^2}.$$

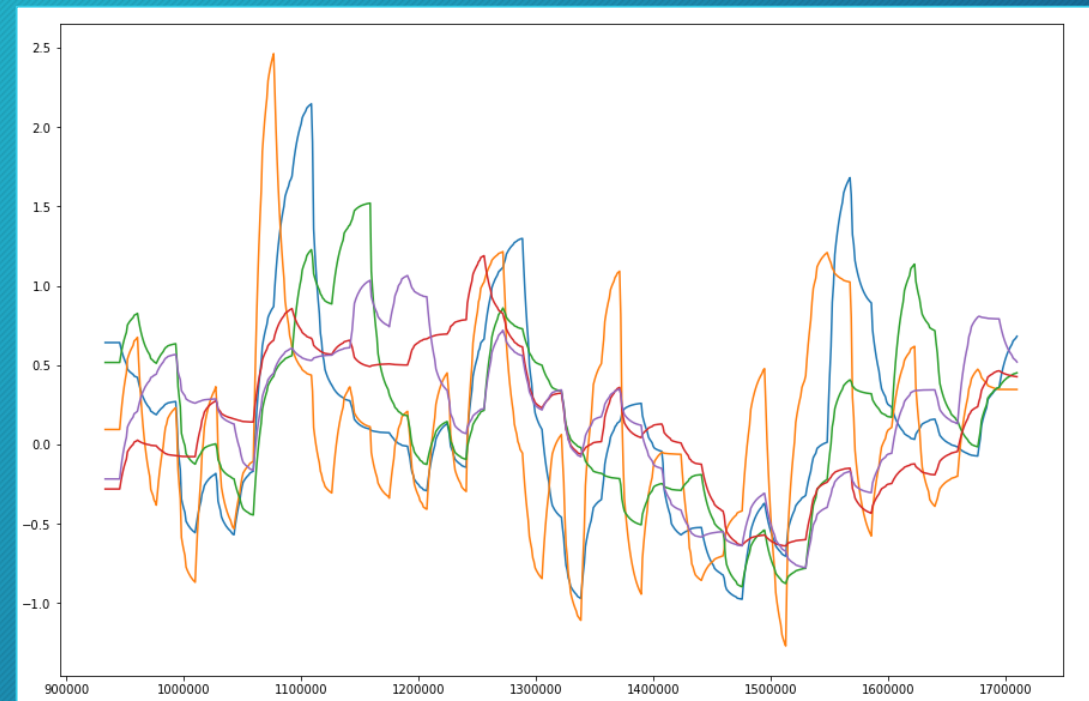
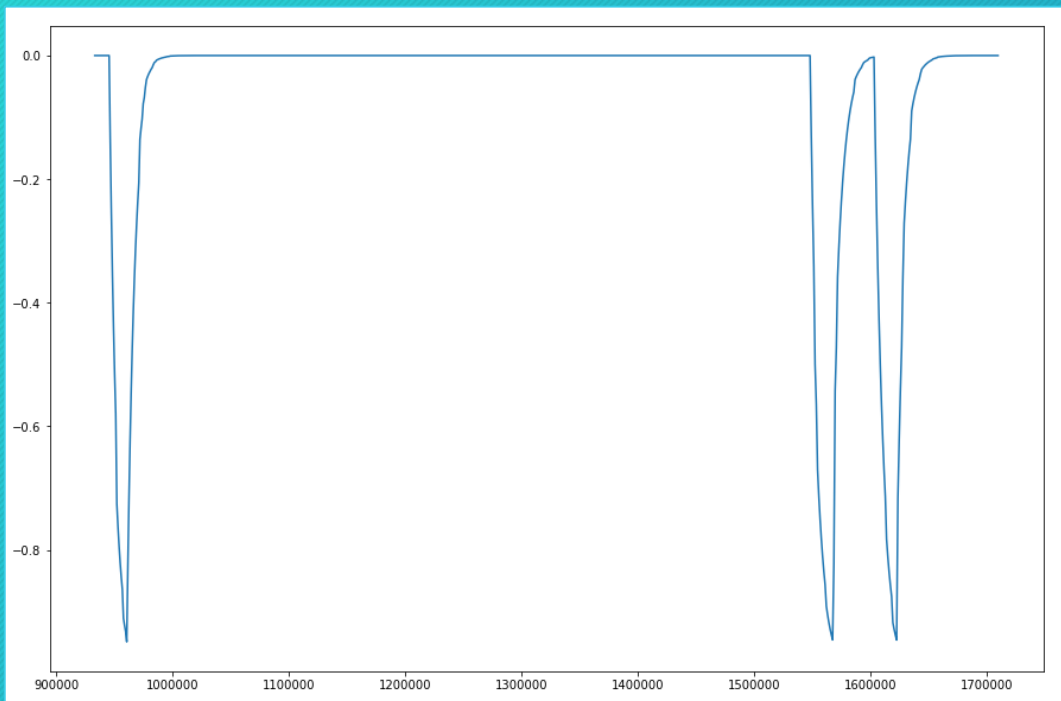
Особенность задачи

- Первое в истории кернел-соревнование
- Необходимо отсылать код вместо предсказаний
- Код должен выполняться в течение 30 минут

Пример данных



Пример данных



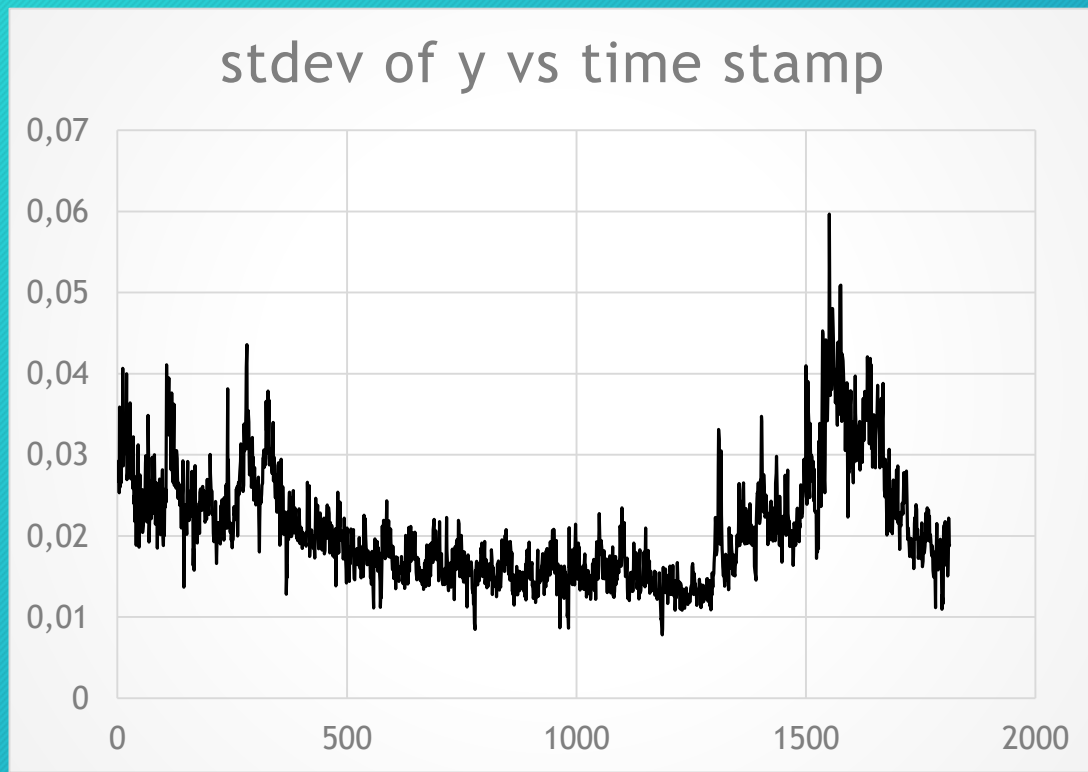
Technical_20, Technical_30








































Technical_20, Technical_30







































Деанонимизация



Валидация

#	—	Team Name 	Kernel	Team Members	Score 	Entries	Last
1	—	 J.S.	 StrategyG		0.0262862	15	25d
2	—	 L to the U to the L	 test_6_7		0.0254988	43	24d
3	—	 Joshua Havelka	 My Test 4		0.0242252	168	23d
4	—	 The "Team Rocket"	 From 0.0225 version...	 	0.0226325	97	23d
5	—	 best fitting	 submit_1_24	  	0.0225789	172	23d
6	—	 William Hau	 whReinforcement		0.0221621	165	23d
7	—	 Oussama & Kenley & Ayoub	 the day J -1	  	0.0220081	179	23d
8	—	Mario Filho Stanislav Semenov	 new xgb stas dep7 la...	 	0.0217276	107	23d
9	—	Alex & Dani	 ExtraTrees parameters	 	0.0211619	118	23d
10	—	DataFinance	 3494_2091_1628	 	0.0210203	100	24d

#	Δpub	Team Name 	Kernel	Team Members	Score 	Entries	Last
1	▲ 35	 Dr. Knope	 train7_g4e-3_eta0p0...		0.0382244	26	23d
2	▲ 11	 NimaShahbazi & mchahhou	 TimeSeries_nm12	 	0.0369387	170	23d
3	▲ 880	 The Wolf of Wall Street	 alea_jacta_est	 	0.0368410	111	23d
4	▲ 388	 rnrq	 my_ensemble		0.0343235	70	23d
5	▲ 5	 DataFinance	 3494_2091_1628	 	0.0323850	100	24d
6	▼ 1	 best fitting	 submit_1_24	  	0.0320763	172	23d
7	▲ 32	 NIWATORI	 roll_lr		0.0301690	31	24d
8	▲ 7	E2	 FizikCimen	 	0.0291539	43	23d
9	▲ 10	John Ma	 remove200		0.0289587	97	24d
10	▲ 24	Pradeep and Arthur	 ET/Naive Bayes para...	 	0.0287992	111	23d

Итоговая модель

- XGBoost:
- Std of Technical_20-Technical_30 per ts
- Technical_20
- Technical_30
- Diff Technical_20
- Diff Technical_30
- CumSum Technical_20
- CumSum Technical_30
- ...

Выводы

- ???

- Спасибо за внимание!