

자동화된 ML, 나도 해보자

Episode 3: GUI로 자동화된ML 직접 해보기

한석진
마이크로소프트

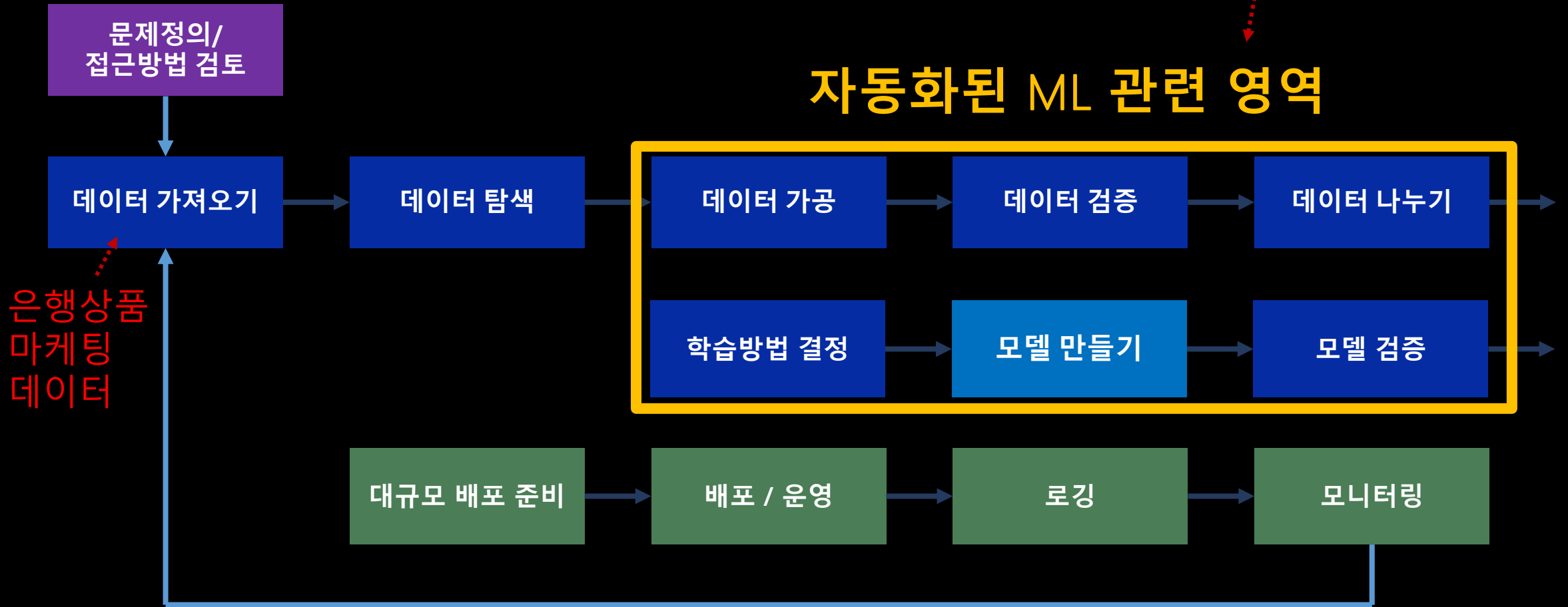
Episode 3

GUI로 자동화된ML 직접 해보기

ML 생애주기와 실습 시나리오

시나리오

마케팅 이벤트
반응여부 예측
(Classification)



데이터

age	job	marital	education	default	housing	loan	contact	month	day_of_week	duration	campaign	pdays	previous	poutcome	emp.var.rate	cons.price.idx	cons.conf.idx	euribor3m	nr.employed	y
57	technician	married	high.school	no	no	yes	cellular	may	mon	371	1	999	1	failure	-1.8	92.89299999999999	-46.2	1.2990000000000002	5099.1	no
55	unknown	married	unknown	unknown	yes	no	telephone	may	thu	285	2	999	0	nonexistent	1.1	93.994	-36.4	4.86	5191.0	no
33	blue-collar	married	basic.9y	no	no	no	cellular	may	fri	52	1	999	1	failure	-1.8	92.89299999999999	-46.2	1.3130000000000002	5099.1	no
36	admin.	married	high.school	no	no	no	telephone	jun	fri	355	4	999	0	nonexistent	1.4	94.465	-41.8	4.967	5228.1	no
27	housemaid	married	high.school	no	yes	no	cellular	jul	fri	189	2	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.963	5228.1	no
58	retired	married	professional.course	no	yes	yes	cellular	jul	fri	605	1	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.962	5228.1	no
48	services	married	high.school	unknown	yes	no	telephone	may	wed	243	1	999	0	nonexistent	1.1	93.994	-36.4	4.856	5191.0	no
51	admin.	divorced	university.degree	unknown	yes	no	cellular	aug	thu	24	7	999	0	nonexistent	1.4	93.444	-36.1	4.962	5228.1	no
24	entrepreneur	married	university.degree	no	yes	yes	telephone	jun	wed	126	4	999	0	nonexistent	1.4	94.465	-41.8	4.962	5228.1	no
36	technician	divorced	professional.course	no	yes	yes	cellular	jul	mon	43	4	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.962	5228.1	no
34	blue-collar	married	basic.9y	no	no	no	cellular	may	fri	451	3	999	0	nonexistent	-1.8	92.89299999999999	-46.2	1.3130000000000002	5099.1	no
42	blue-collar	single	basic.4y	no	yes	no	cellular	may	thu	560	3	999	0	nonexistent	-1.8	92.89299999999999	-46.2	1.327	5099.1	no
43	blue-collar	single	basic.9y	no	yes	no	cellular	jul	thu	982	1	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.963	5228.1	yes
56	admin.	married	university.degree	no	no	no	cellular	aug	wed	552	3	999	0	nonexistent	1.4	93.444	-36.1	4.963999999999995	5228.1	yes
58	blue-collar	married	basic.4y	no	no	yes	cellular	jul	thu	265	3	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.962	5228.1	no
36	housemaid	married	high.school	no	yes	no	telephone	jun	mon	171	1	999	0	nonexistent	1.4	94.465	-41.8	4.865	5228.1	no
26	blue-collar	single	basic.9y	unknown	yes	no	cellular	jul	fri	151	2	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.963	5228.1	no
53	technician	married	professional.course	no	no	yes	cellular	jul	tue	178	11	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.961	5228.1	no
37	entrepreneur	single	professional.course	no	yes	no	cellular	jul	fri	92	2	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.957	5228.1	no
46	admin.	married	university.degree	no	yes	no	cellular	aug	thu	399	1	999	1	failure	-2.9	92.20100000000001	-31.4	0.873	5076.2	yes
59	retired	married	basic.9y	unknown	no	no	cellular	jul	fri	1330	3	999	0	nonexistent	1.4	93.91799999999999	-42.7	4.962	5228.1	yes
49	unemployed	single	professional.course	unknown	no	no	telephone	may	fri	339	2	999	0	nonexistent	1.1	93.994	-36.4	4.855	5191.0	no

<https://aka.ms/azpls/azureml-automl-data-bmarketing>

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ML 생애주기와 실습 시나리오

{다음 시간에는}

Episode 4
자동화된ML 결과
해석하기

잘 예측하냐 (당장의 테스트 결과)
잘 예측하냐 (속을 들여다 봤을 때)