

# Dataset View - Adecco

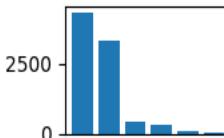
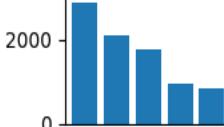
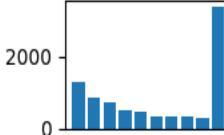
## Dataset Head

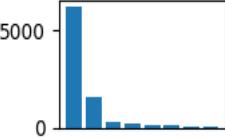
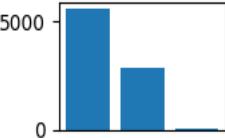
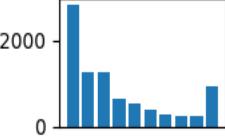
cand_provenance_gender	cand_age_bucket	cand_domicile_province	cand_education	job_contract_type	job_sector	job_work_province	hired
North Male	45-54	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	35-44	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Female	45-54	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	15-24	TS	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Female	35-44	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	55-74	UD	Other	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	55-74	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	25-34	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Female	45-54	GO	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Female	35-44	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	25-34	MI	High School	Ricerca e selezione	GDO / Retail / Commissari / Scaffalisti	MI	Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commissari / Scaffalisti	MI	Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commissari / Scaffalisti	MI	Hired
North Male	35-44	MI	Unknown	Ricerca e selezione	GDO / Retail / Commissari / Scaffalisti	MI	Hired
North Female	25-34	MI	Unknown	Ricerca e selezione	GDO / Retail / Commissari / Scaffalisti	MI	Hired
North Female	45-54	BG	Unknown	Ricerca e selezione	GDO / Retail / Commissari / Scaffalisti	MI	Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commissari / Scaffalisti	MI	Hired

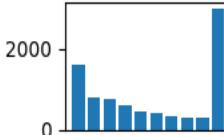
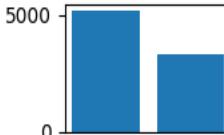
North Female	25-34	BG	Unknown	Ricerca e selezione	GDO / Retail / Commessi / Scaffalisti	MI	Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commessi / Scaffalisti	MI	Hired
North Female	35-44	BG	Unknown	Ricerca e selezione	GDO / Retail / Commessi / Scaffalisti	MI	Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	45-54	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	15-24	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	25-34	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	25-34	CB	Other	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	45-54	CB	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired
South Male	25-34	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Hired

# Features View

## Stats

feature	missing_values	unique	top	freq	values	distribution	sensitive	target
cand_provenance_gender	0	6	North Male	4350	Central Female, Central Male, North Female, North Male, South Female, South Male		True	False
cand_age_bucket	0	5	25-34	2888	15-24, 25-34, 35-44, 45-54, 55-74		True	False
cand_domicile_province	0	78	MI	1305	AL, AN, AO, AP, AQ, AR, AT, BG, BI, BL, BO, BS, BT, BZ, CA, CB, CE, CH, CN, CO, CR, CS, FC, FE, FI, FM, FR, GE, GO, IM, IS, LC, LI, LO, LT, LU, MB, MC...		False	False

feature	missing_values	unique	top	freq	values	distribution	sensitive	target
cand_education	0	8	Unknown	6212	Graduate, High School, Higher Technical Institute, Other, PhD, Undergraduate, Unknown, Vocational Certificate		False	False
job_contract_type	0	3	Lavoro subordinato	5624	Lavoro subordinato, Other, Ricerca e selezione		False	False
job_sector	0	18	Operai Generici	2827	Assistenziale / Paramedico / Tecnico, Bar / Catering / Personale Di Sala / Cuochi / Chef, Commerciale / Vendita, Finanza / Contabilità, GDO / Retail /...		False	False

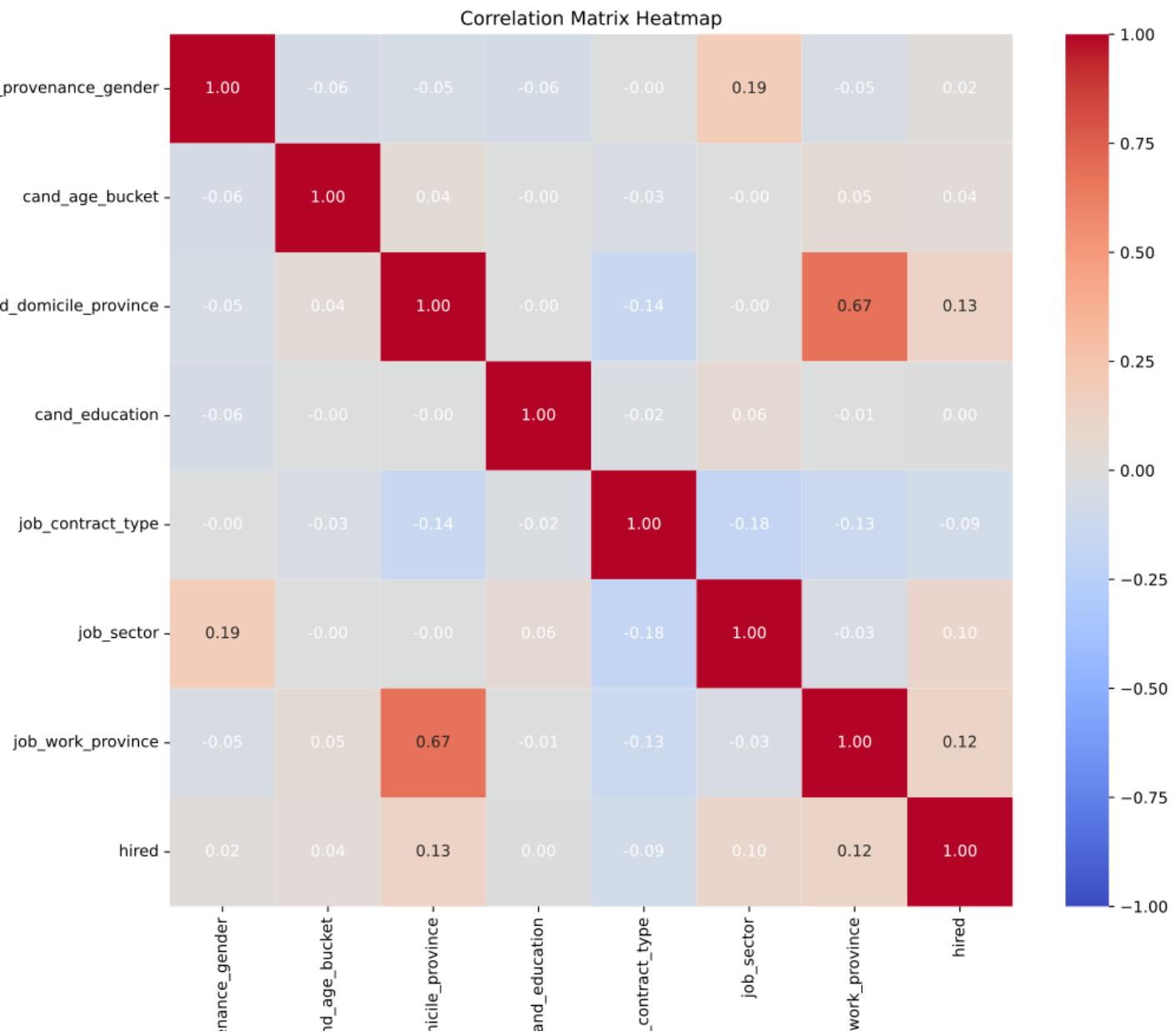
feature	missing_values	unique	top	freq	values	distribution	sensitive	target
job_work_province	0	53	MI	1607	AN , AO , AP , AQ , AR , BG , BI , BL , BO , BS , BZ , CA , CH , CN , CO , CR , FC , FI , FM , FR , GE , GO , LC , LO , MB , MC , MI , MN , MO , NO , ...		False	False
hired	0	2	Hired	5203	Hired, Not Hired		False	True

## Features

Field Name	drop	sensitive	target
cand_provenance_gender	x	✓	x
cand_age_bucket	x	✓	x
cand_domicile_province	x	x	x
cand_education	x	x	x
job_contract_type	x	x	x
job_sector	x	x	x
job_work_province	x	x	x
hired	x	x	✓

# Proxies

## Correlation Matrix



## Suggested Proxies

### Cand\_provenance\_gender

	cand_age_bucket	cand_domicile_province	cand_education	job_contract_type	job_sector	job_work_province
correlation	-6.24%	-5.09%	-5.64%	-0.35%	18.65%	-4.58%
suggested_proxy	x	x	x	x	x	x

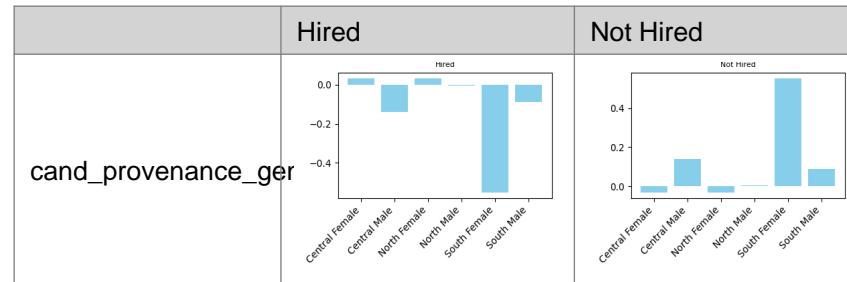
### Cand\_age\_bucket

	cand_provenance_gender	cand_domicile_province	cand_education	job_contract_type	job_sector	job_work_province
correlation	-6.24%	4.42%	-0.08%	-3.49%	-0.12%	4.83%
suggested_proxy	x	x	x	x	x	x

# Detection

## Selected Metrics

### StatisticalParityDifference



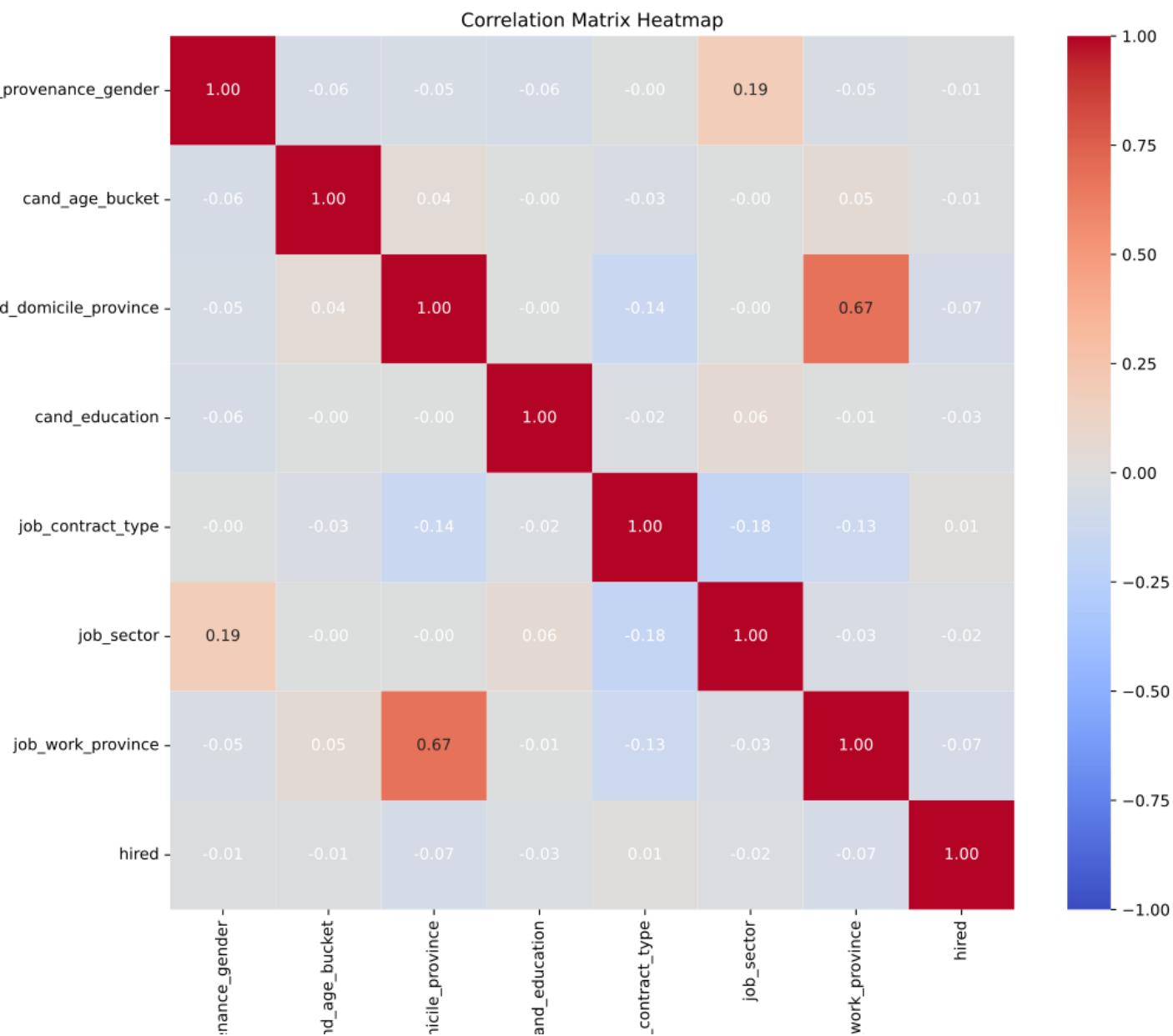
# Model Mitigation

## Inprocessing

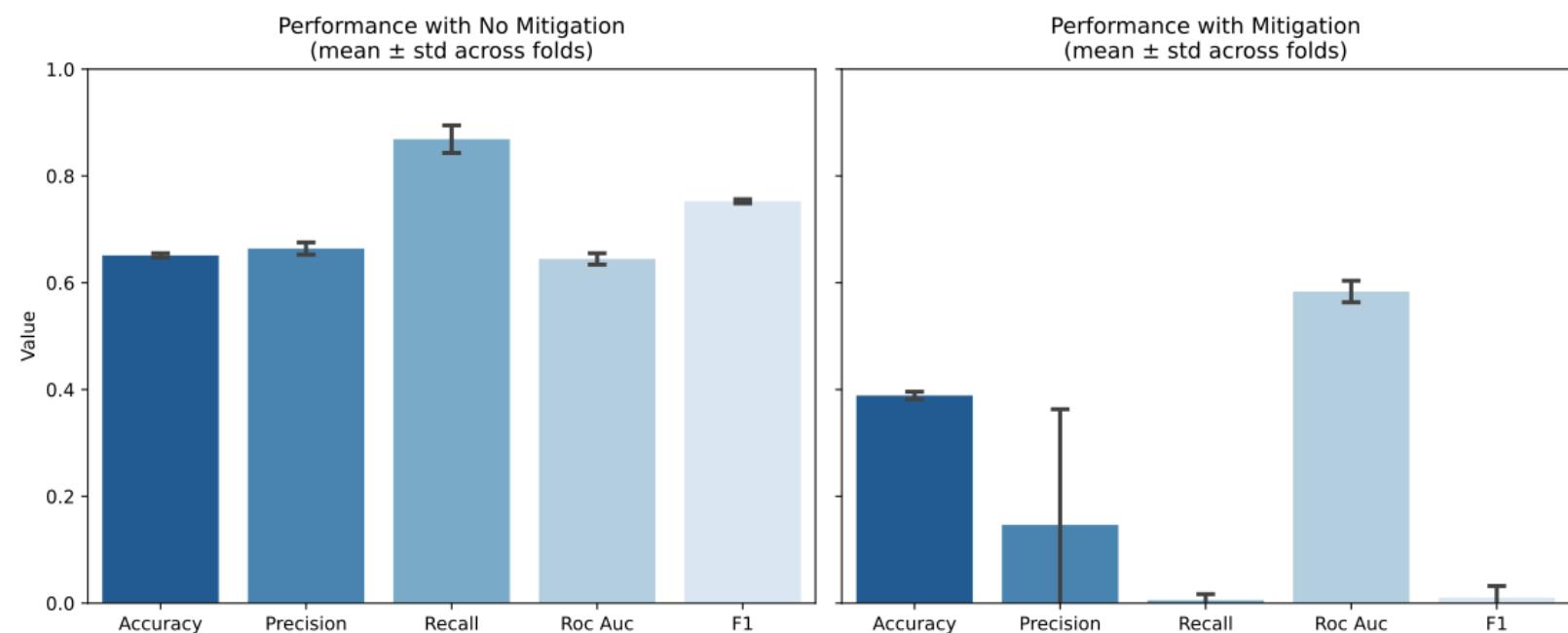
\$algorithm	lambda	hidden_layers	hidden_dim	epochs
FaUCI	1	1	8	100

# Model Mitigation Results

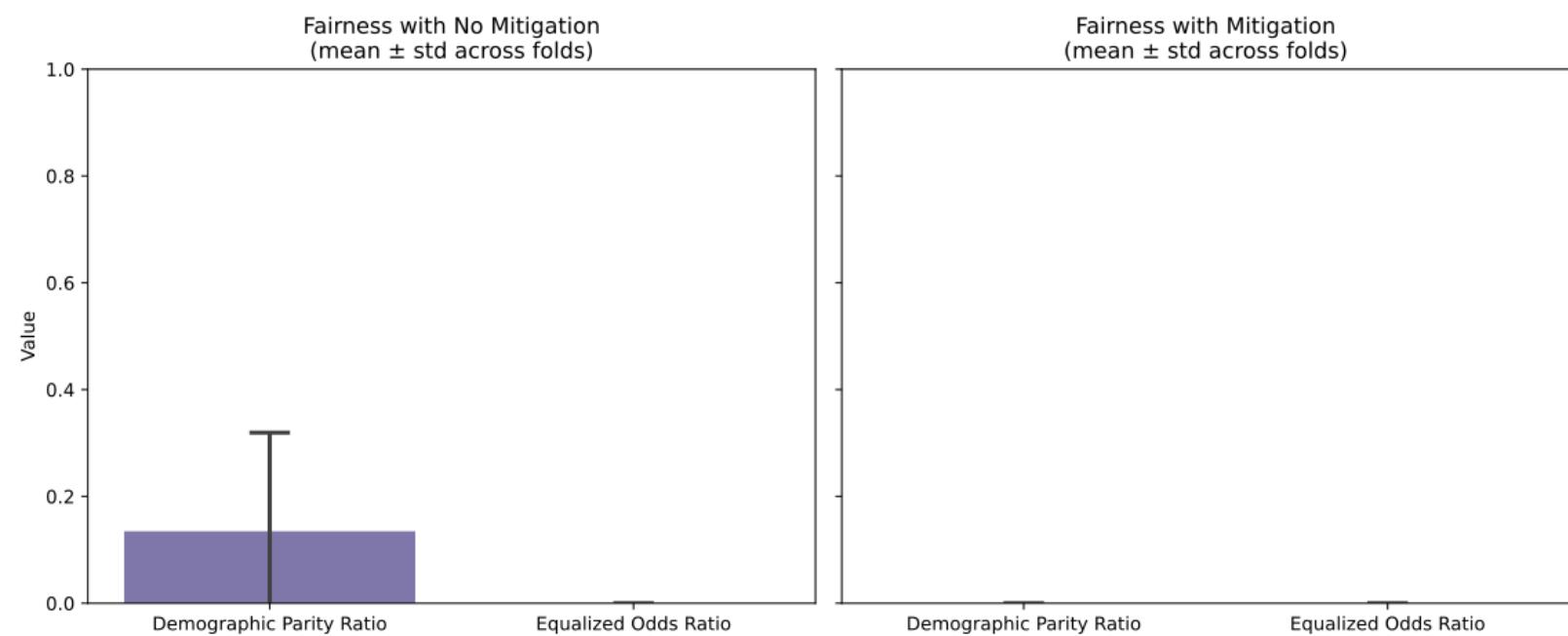
## Correlation Matrix



## Performance Plot



# Fairness Plot



## Predictions Head

cand_provenance_gender	cand_age_bucket	cand_domicile_province	cand_education	job_contract_type	job_sector	job_work_province	hired
North Male	45-54	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	35-44	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Hired
North Female	45-54	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Hired
North Male	15-24	TS	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Female	35-44	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	55-74	UD	Other	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	55-74	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	25-34	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Female	45-54	GO	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Hired
North Female	35-44	UD	Unknown	Lavoro subordinato	Progettisti / Design / Grafici	UD	Not Hired
North Male	25-34	MI	High School	Ricerca e selezione	GDO / Retail / Commissariati / Scaffalisti	MI	Not Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commissariati / Scaffalisti	MI	Not Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commissariati / Scaffalisti	MI	Not Hired
North Male	35-44	MI	Unknown	Ricerca e selezione	GDO / Retail / Commissariati / Scaffalisti	MI	Not Hired
North Female	25-34	MI	Unknown	Ricerca e selezione	GDO / Retail / Commissariati / Scaffalisti	MI	Not Hired
North Female	45-54	BG	Unknown	Ricerca e selezione	GDO / Retail / Commissariati / Scaffalisti	MI	Not Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commissariati / Scaffalisti	MI	Not Hired

North Female	25-34	BG	Unknown	Ricerca e selezione	GDO / Retail / Commessi / Scaffalisti	MI	Not Hired
North Female	25-34	MB	Unknown	Ricerca e selezione	GDO / Retail / Commessi / Scaffalisti	MI	Not Hired
North Female	35-44	BG	Unknown	Ricerca e selezione	GDO / Retail / Commessi / Scaffalisti	MI	Not Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	45-54	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	15-24	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	25-34	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	35-44	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	25-34	CB	Other	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	45-54	CB	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired
South Male	25-34	CH	Unknown	Lavoro subordinato	Operai Specializzati	CH	Not Hired

## Selected Metrics

### StatisticalParityDifference

