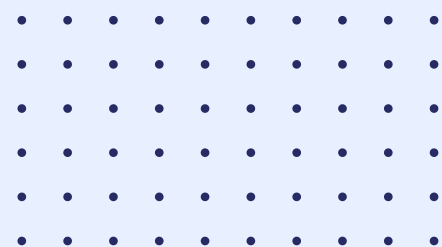


IT SALARY EDA

A LOOK AT SALARY TRENDS IN
THE IT DOMAIN

LELIA ERSCOI

Artificial Intelligence - Digital Sciences

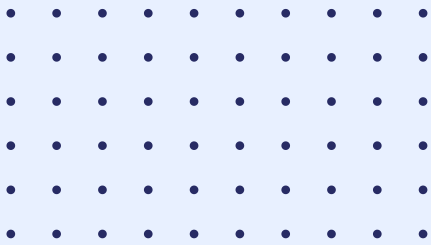


ABOUT THE DATASET

- Anonymous survey
- EU region, focus on Germany
- 2020 data



	Timestamp	Age	Gender	City	Position	Total years of experience	Years of experience in Germany	Seniority level	Your main technology / programming language	Other technologies/programming languages you use often	Yearly brutto salary (without bonus and stocks) in EUR	Yearly bonus + stocks in EUR	Annual brutto salary (without bonus and stocks) one year ago. Only answer if staying in the same country	Annual bonus+stocks one year ago. Only answer if staying in same country	Number of vacation days	Employment status	Contract duration	Main language at work	Company size	Company type	Have you lost your job due to the coronavirus outbreak?	Have you been forced to have a shorter working week (Kurzarbeit)? If yes, how many hours per week	Have you received additional monetary support from your employer due to Work From Home? If yes, how much in 2020 in EUR
0	24/11/2020 11:14:15	26.0	Male	Munich	Software Engineer	5	3	Senior	TypeScript	Kotlin, Javascript / Typescript	80000.0	5000	75000.0	10000	30	Full-time employee	Unlimited contract	English	51-100	Product	No	NaN	NaN
1	24/11/2020 11:14:16	26.0	Male	Berlin	Backend Developer	7	4	Senior	Ruby	NaN	80000.0	NaN	82000.0	5000	28	Full-time employee	Unlimited contract	English	101-1000	Product	No	NaN	NaN
2	24/11/2020 11:14:21	29.0	Male	Berlin	Software Engineer	12	6	Lead	Javascript / Typescript	Javascript / Typescript, Docker	120000.0	120000	100000.0	100000	30	Self-employed (freelancer)	Temporary contract	English	101-1000	Product	Yes	NaN	NaN
3	24/11/2020 11:15:24	28.0	Male	Berlin	Frontend Developer	4	1	Junior	Javascript	NaN	54000.0	NaN	NaN	NaN	24	Full-time employee	Unlimited contract	English	51-100	Startup	No	NaN	NaN
4	24/11/2020 11:15:46	37.0	Male	Berlin	Backend Developer	17	6	Senior	C# .NET	.NET, SQL, AWS, Docker	62000.0	NaN	62000.0	NaN	29	Full-time employee	Unlimited contract	English	101-1000	Product	No	NaN	NaN

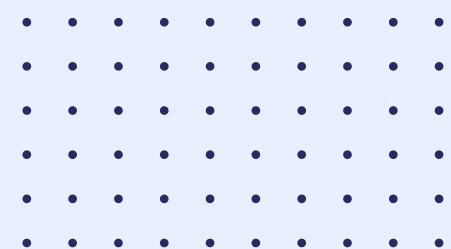


1 ————— 2 ————— 3 ————— 4 ————— 5

STEP

Renaming
Columns

'Have you been forced
to have a shorter
working week
(Kurzarbeit)? If yes, how
many hours per week',
->
"HoursIfShorterWeek"



STEP

Deleting
Useless
Columns

"Timestamp", "City"

STEP

Check for
Duplicates

No duplicate rows!

STEP

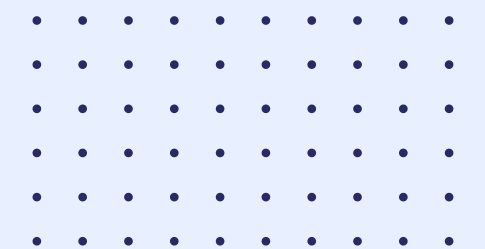
Convert Data
Types

From Object to Floats

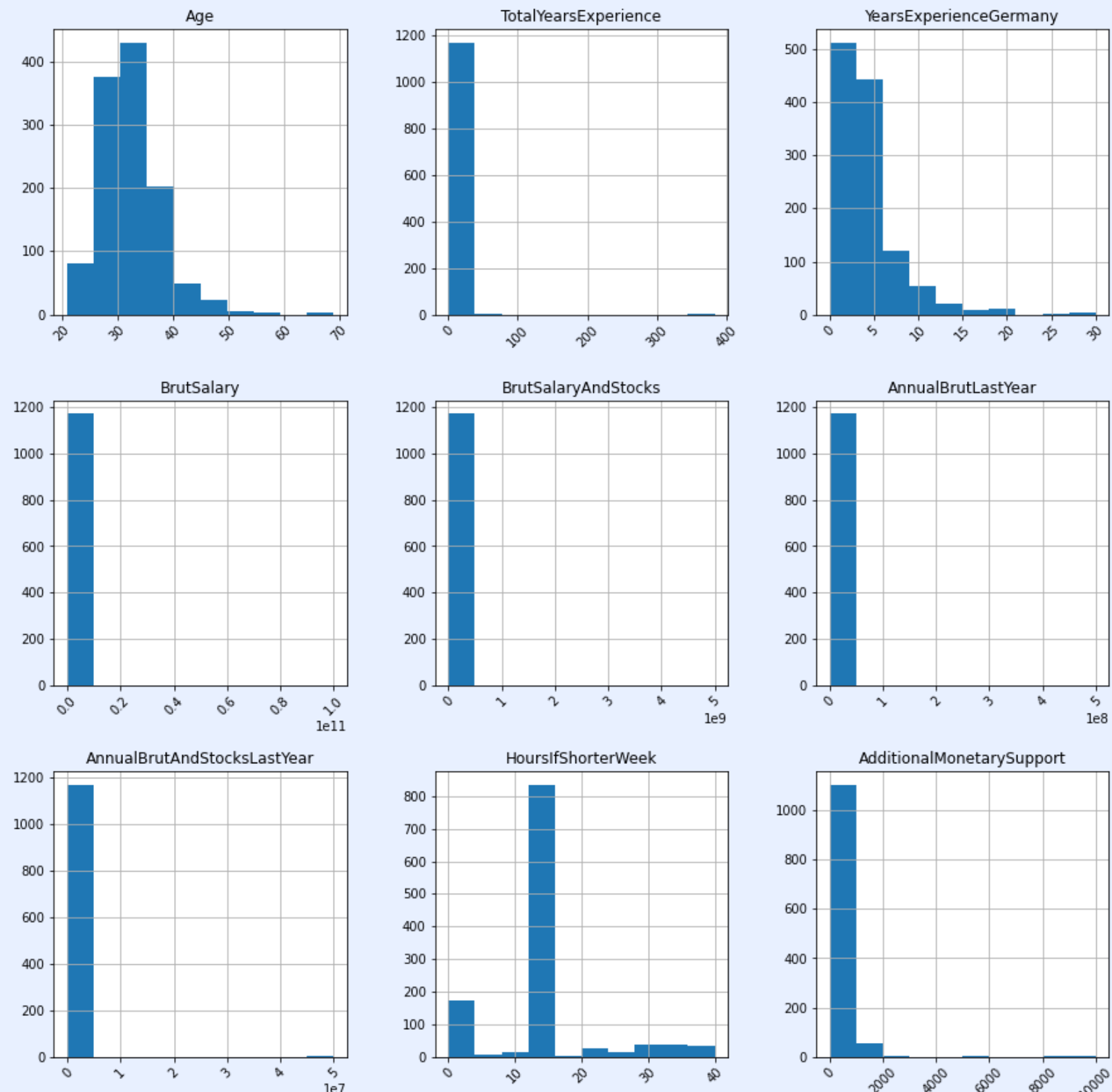
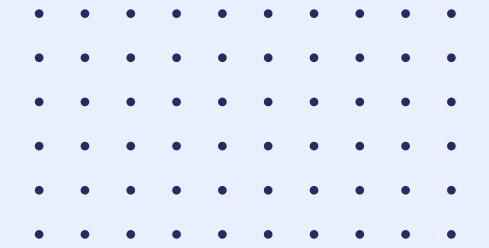
STEP

Fill in Empty
Values

With mean,
median, or mode



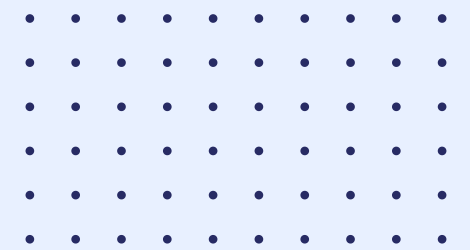
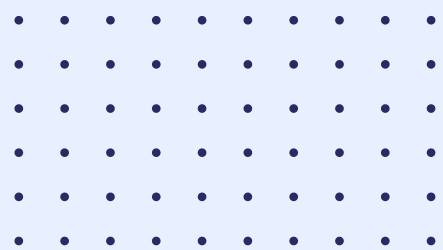
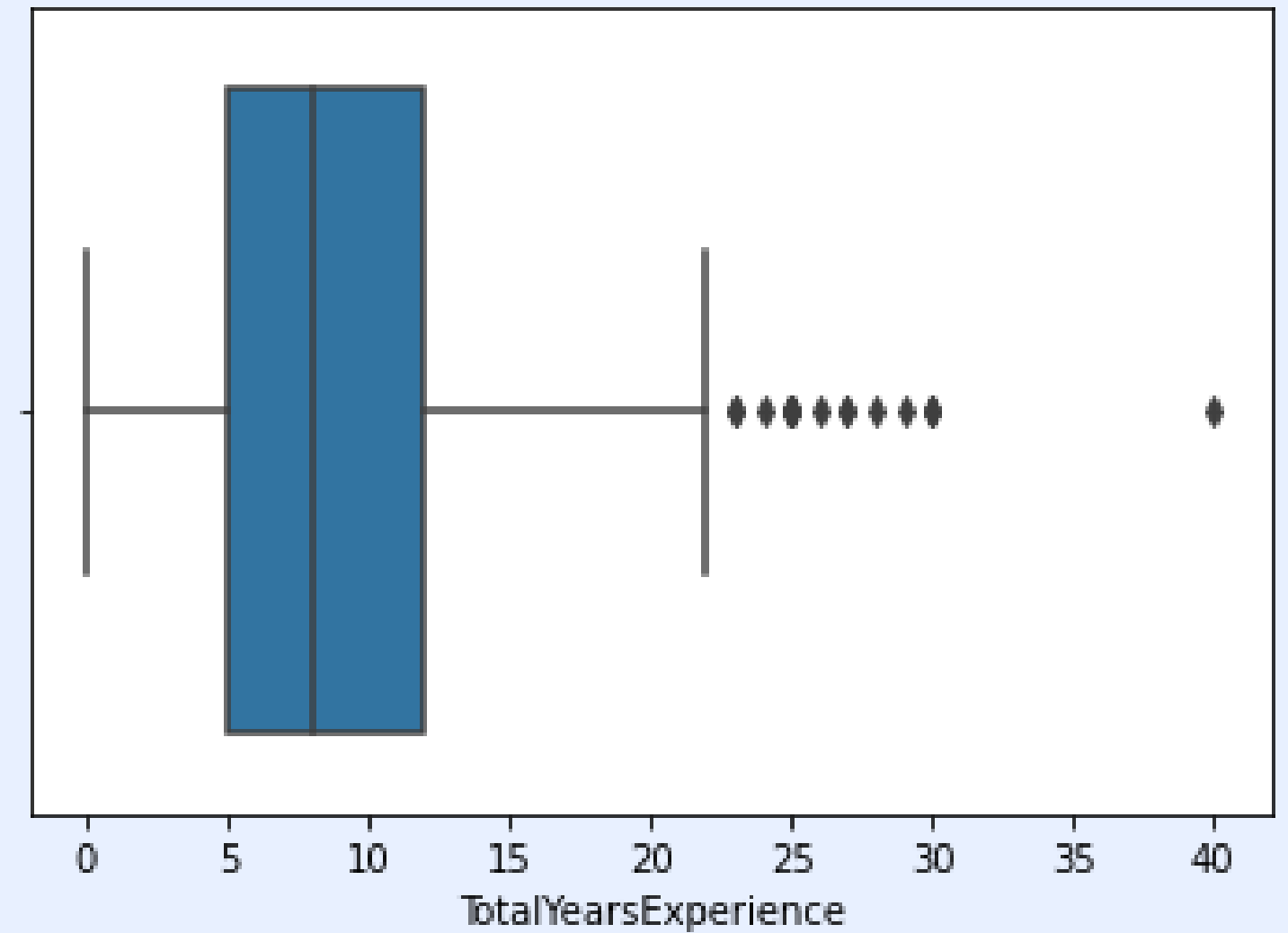
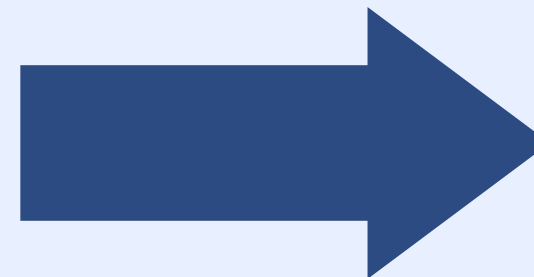
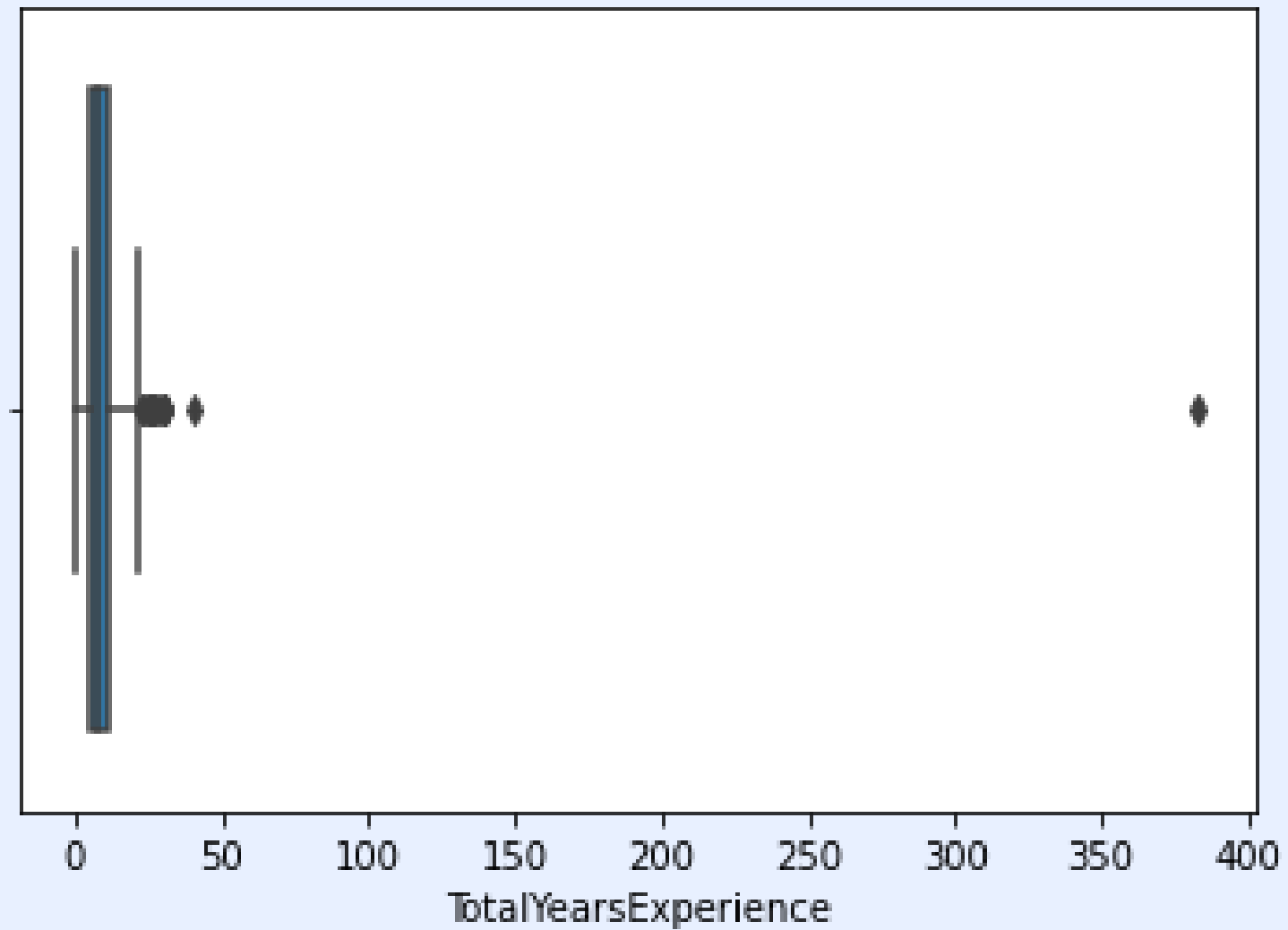
CLEANING THE DATA



DATA INSPECTION

- 1171 entries and 20 variables
- Lots of outliers!-
 - Largest value in the annual salary category: $5 \cdot 10^8$
 - Most years of experience: 383
 - Biggest amount of monetary support: 10000.

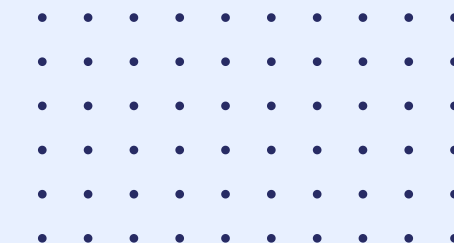
OUTLIER REMOVAL



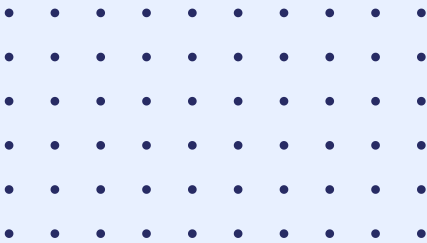


DATA VISUALIZATION

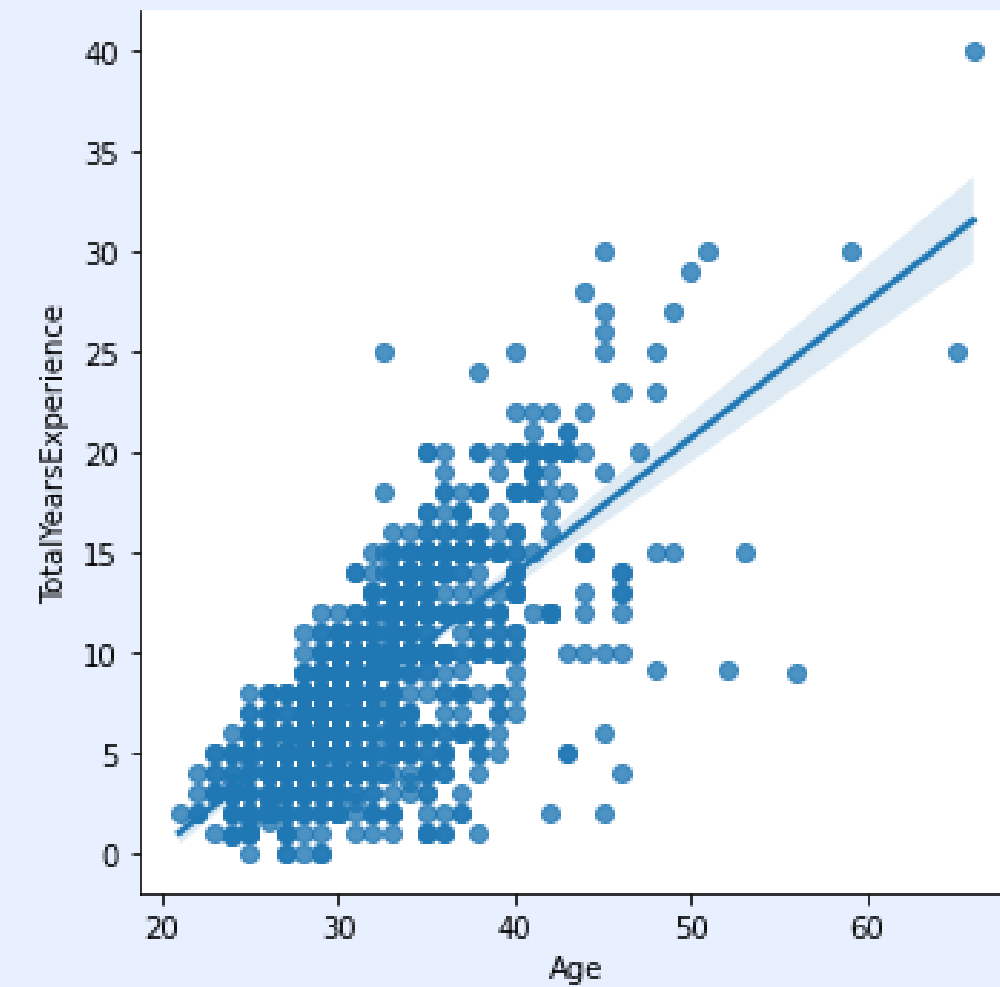
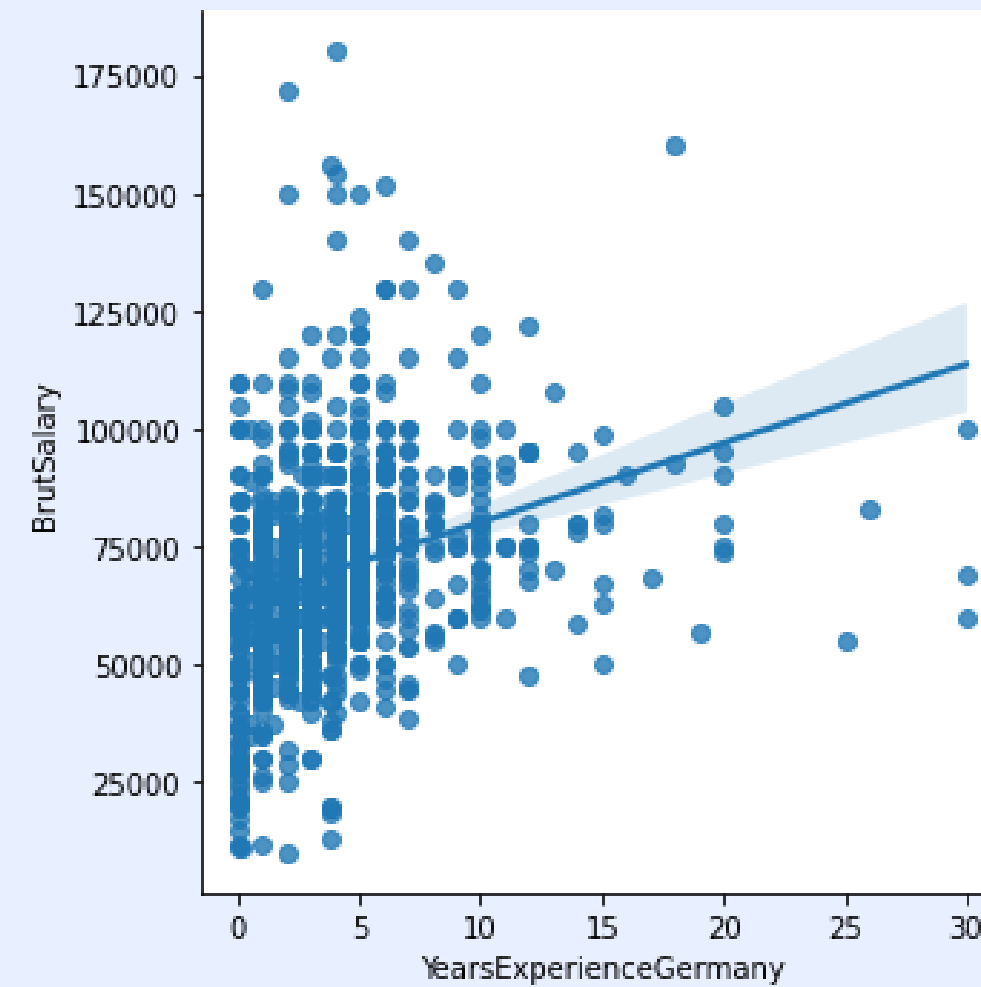
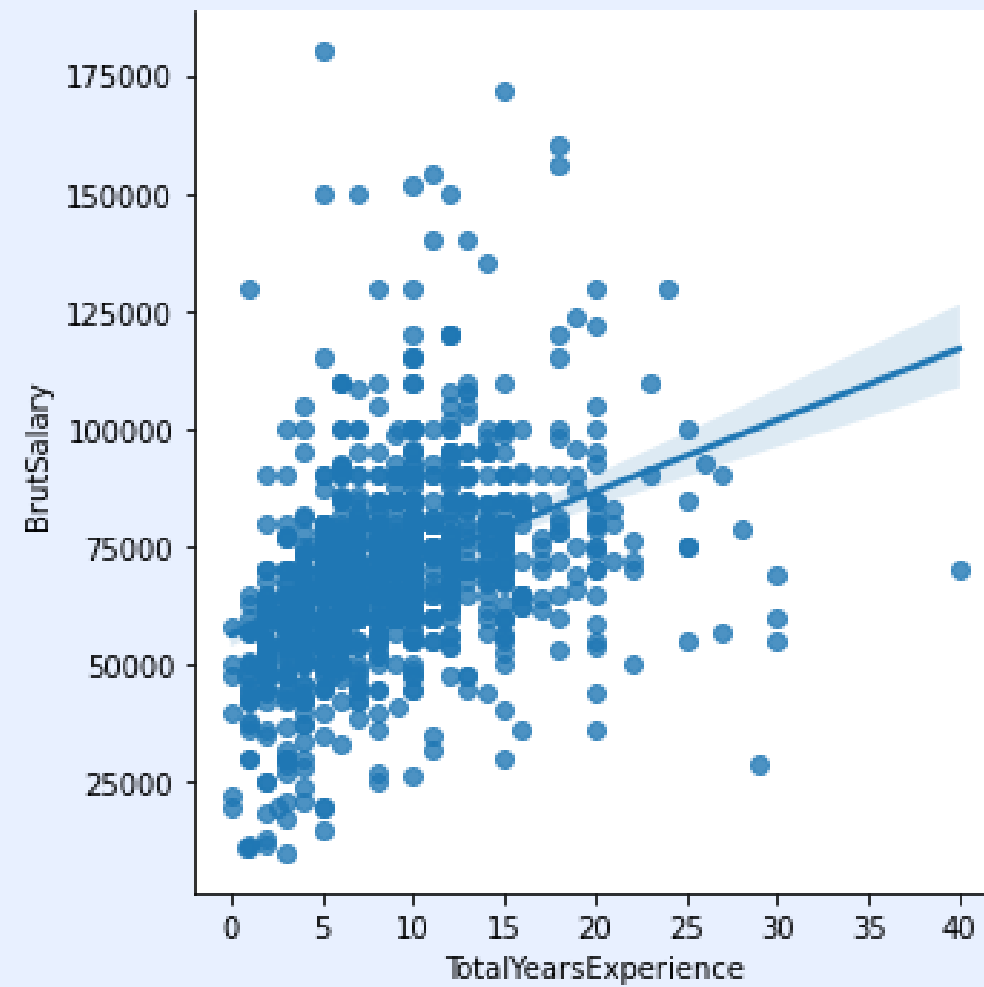
Trends in IT Salaries



SALARIES

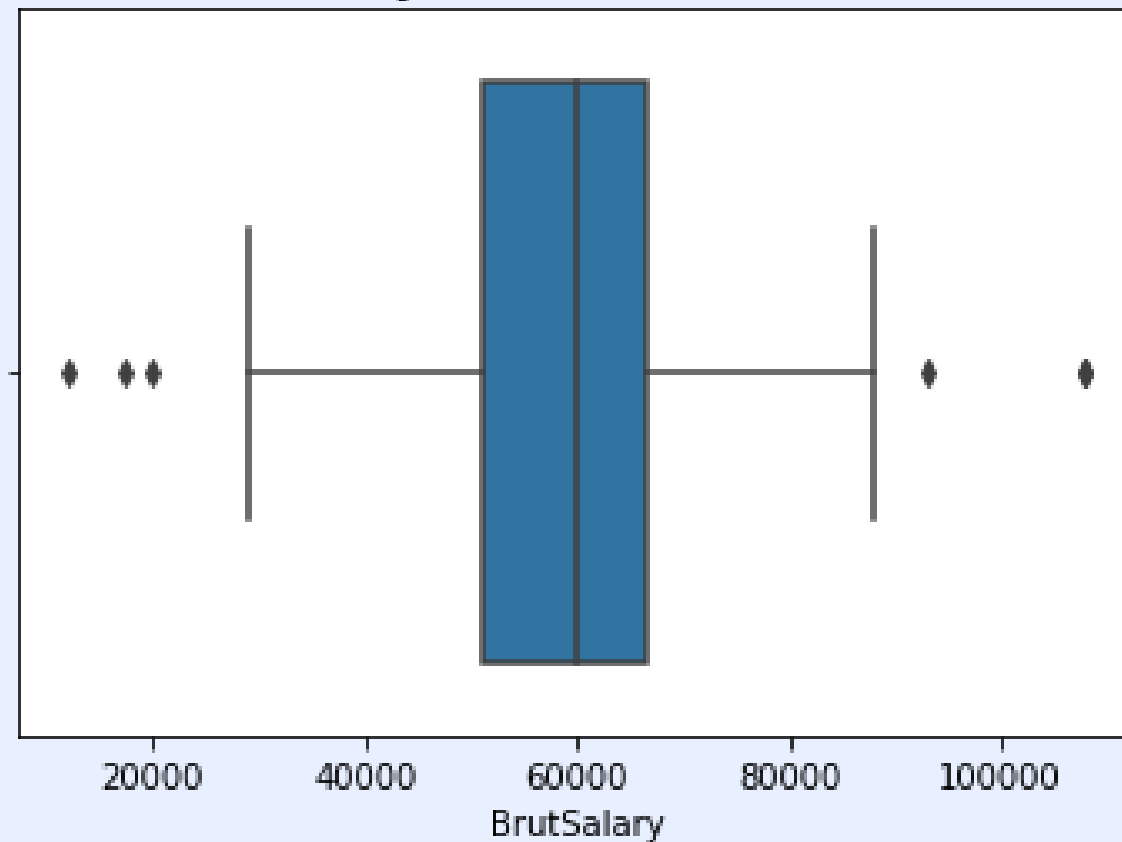


POSITIVE ASSOCIATIONS WITH SALARY

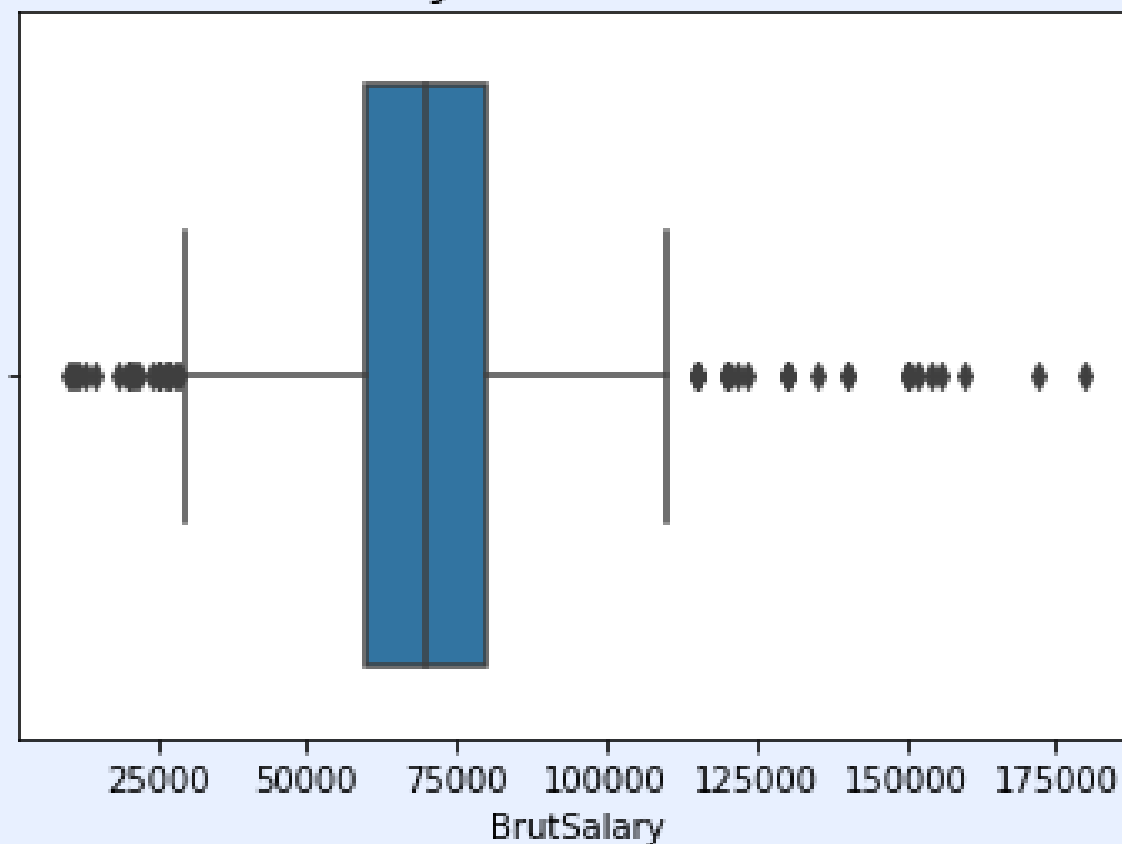


GENDER AND SALARIES

Brut Salary for Female IT Workers

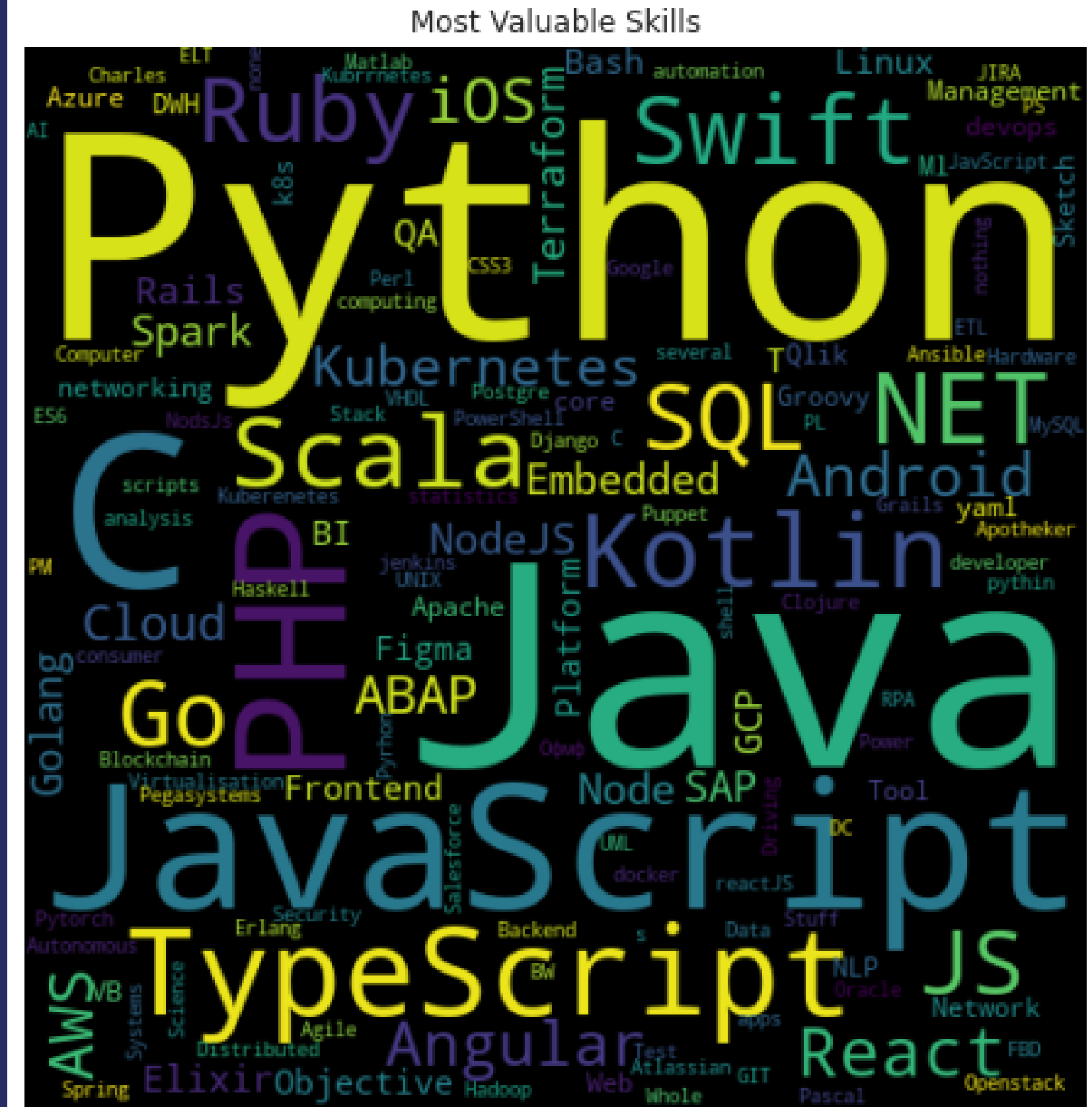


Brut Salary for Male IT Workers



- **Mean:**
 - Women: 59,518
 - Men: 71,218
- **Minim salary:**
 - Women: 12,000
 - Men: 10,164
- **Maximal salary:**
 - Women: 108,000
 - Men: 180,000

MOST VALUABLE SKILLS





THANK YOU

