# **UNIX CODE**

*# number of fields*

$ head -n 1 authors.csv | awk -F, '{print NF}'

Output: 4

*# max year*

$ (awk -F, 'NR>1 {print $1}' authors.csv | sort -n | tail -n 1)

Output: 2021

max\_year=$(awk -F, 'NR>1 {print $1}' authors.csv | sort -n | tail -n 1)

*# year threshold*

$ year\_threshold=$((max\_year - 5))

*# data filtering*

$ awk -F, -v threshold="$year\_threshold" '($1 >= threshold && (index("," $3 ",", ",CIKM,") || index("," $3 ",", ",KDD,") || index("," $3 ",", ",ICWSM,") || index("," $3 ",", ",WWW,") || index("," $3 ",", ",IEEE BigData,")))' authors.csv > filtered\_authors.csv