Diving into the Data Science Job Market

MSDS 593 Final Presentation

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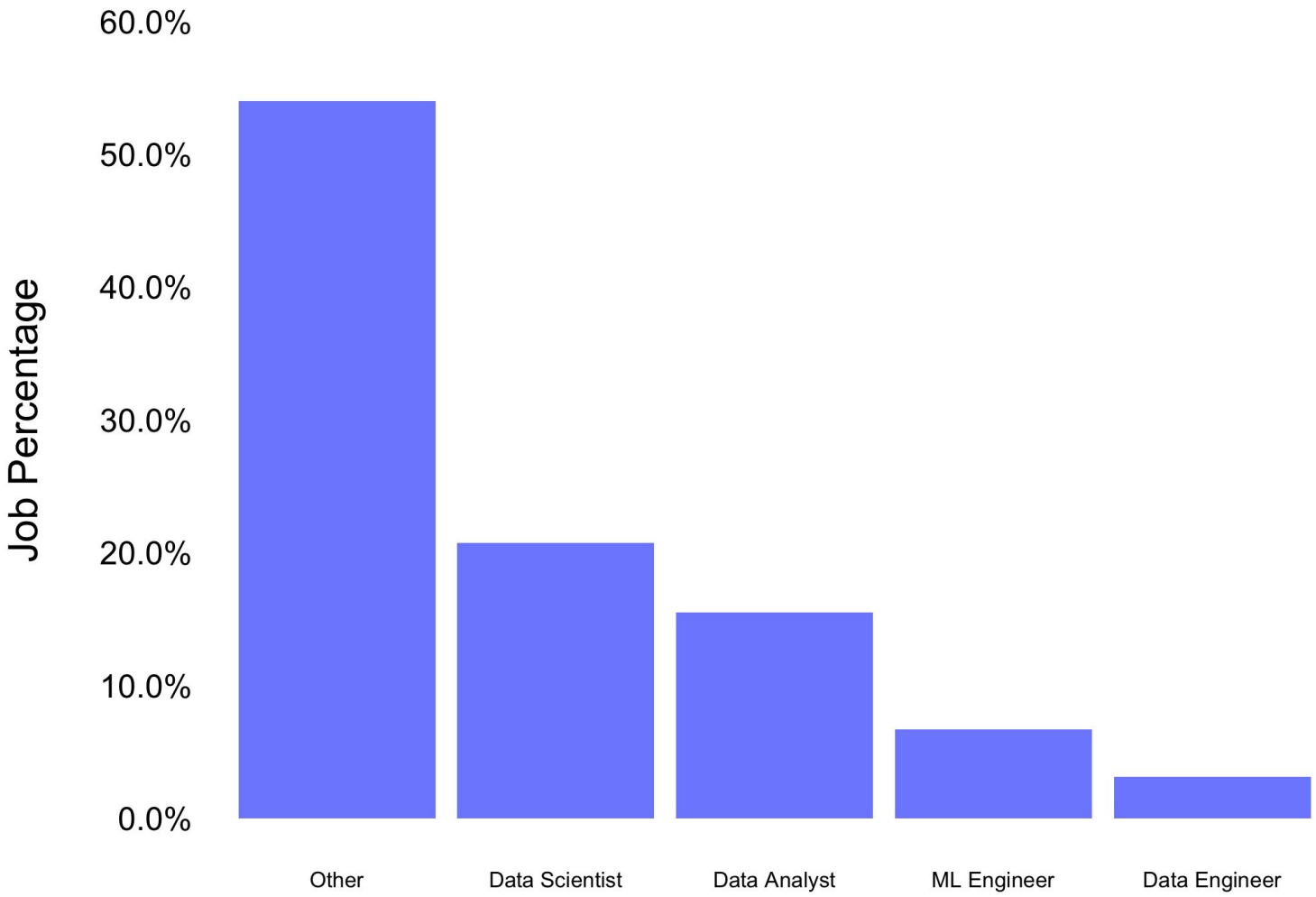
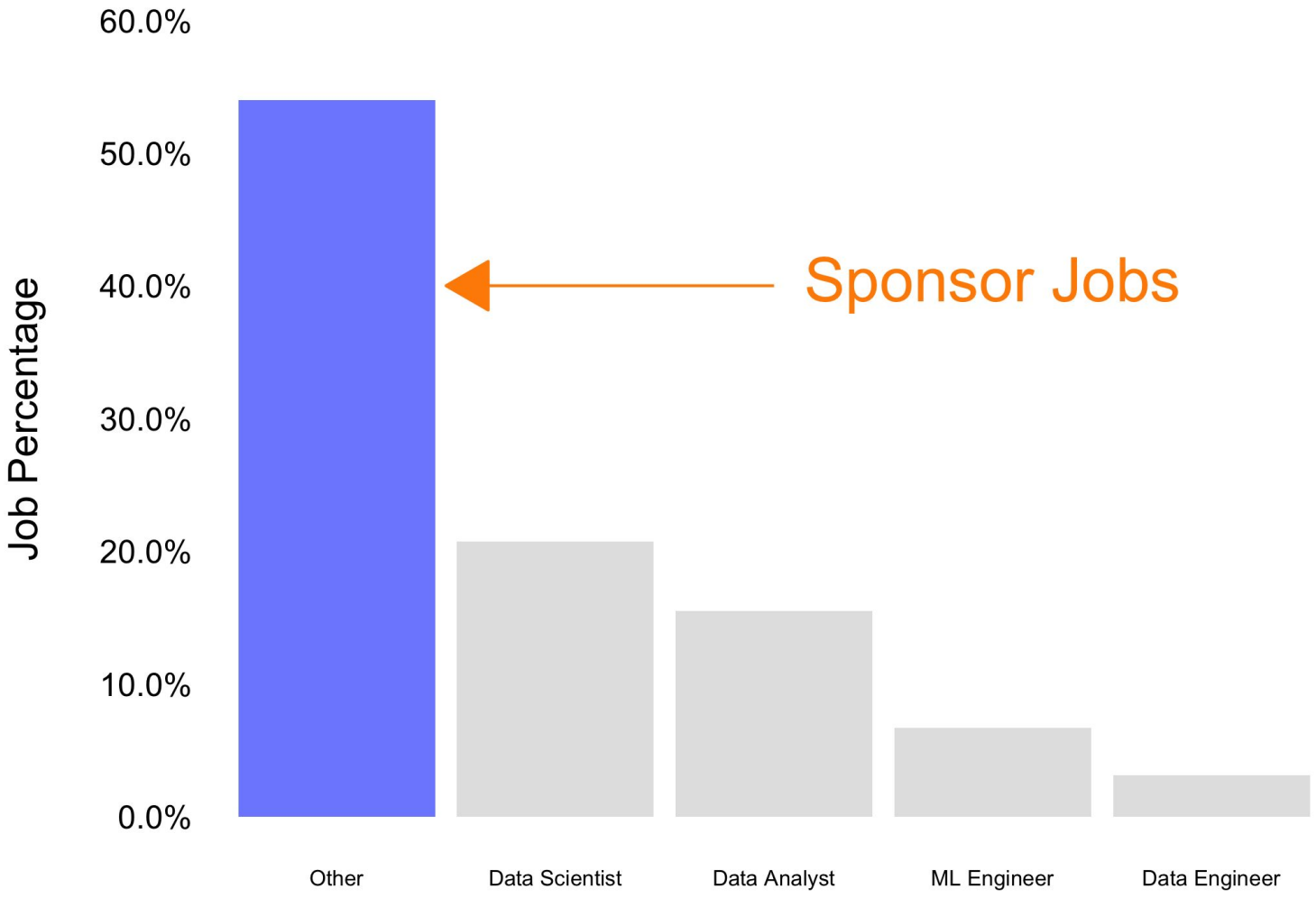
Datasets

- Kaggle:
  - Data Science job posts on Indeed (2018) ~ 7000 samples
    - Features: Location, Job Title, Description
  - Most in demand skills for Data Science

- Web - Scraped:
  - Data Science job posts on Indeed (2019) ~ 24000 samples


Job Percentage
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Other
Data Scientist
Data Analyst
ML Engineer
Data Engineer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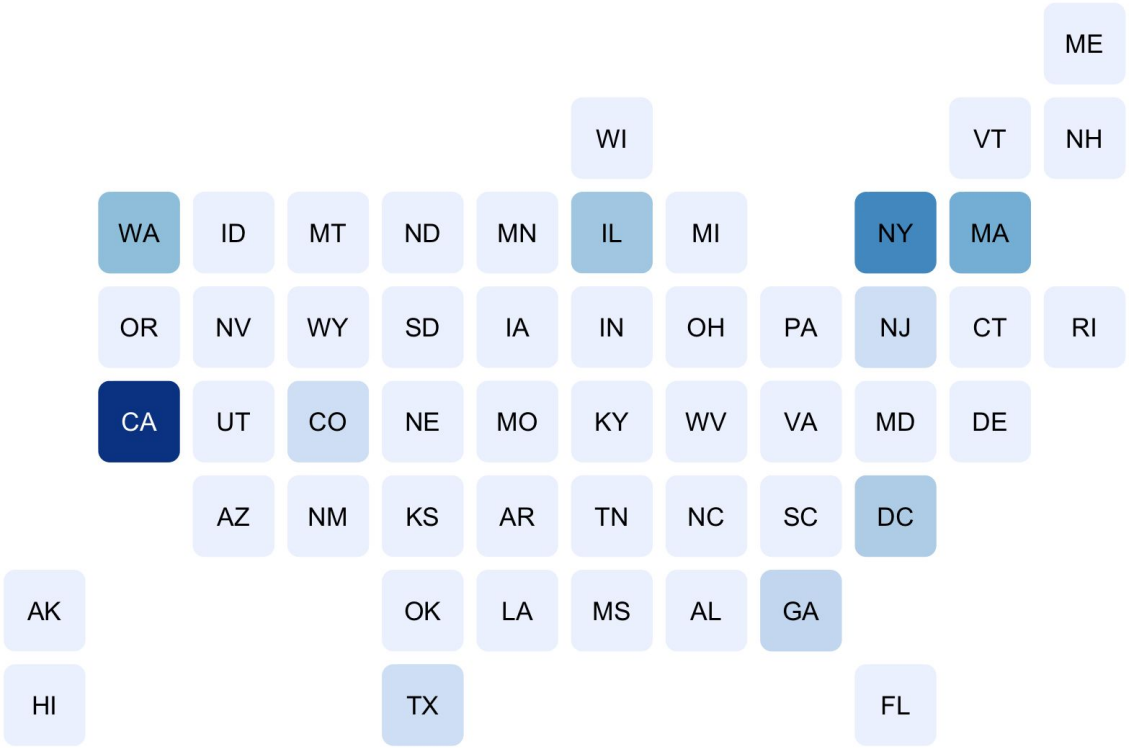
30.0%
20.0%
10.0%
0.0%
Job Percentage
Sponsor Jobs
Other
Data Scientist
Data Analyst
ML Engineer
Data Engineer

Number of DS Jobs per State



research
data
science
manager
development
business intelligence
engineering
machine
modeling
director
finance
project
program
systems
lead
reporting
chemistry
programming
ventures
automation
bioinformatics
biology
supply
chicago
department
execution
compensation
compliance
statistics
methodologist
coordinator
application
administration
product
information
consulting
media
safety
visualization
stability
solution
value
optimization
protein
credit
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role
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cyber
logistics
records
level
mission
growth
decision
client
expert
measurement
biotech
revenue
support
delivery
healthcare
consultant
technology
performance
web
campaign
billing
improvement
control
capacity
trend
associate
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specialist
risk
bioanalytics
process
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evaluation
geo
pricing
validation
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fellow
subways
custom
preclinical
sls
cancer
vaccines
cloud
video
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utility
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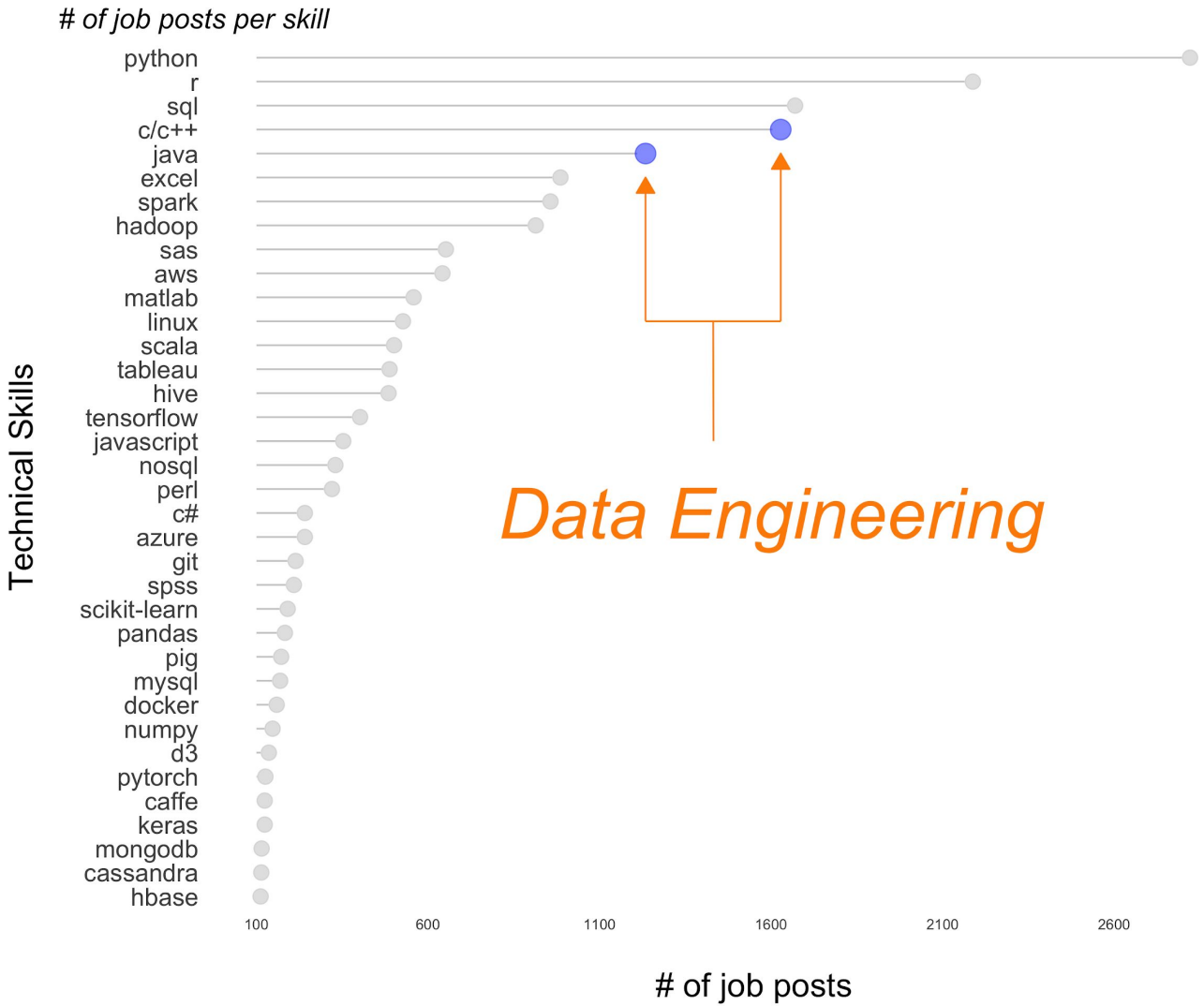
secret
trader
access
time
geo

# of job posts per skill
python
r
sql
c/c++
java
excel
spark
hadoop
sas
aws
matlab
linux
scala
tableau
hive
tensorflow
javascript
nosql
perl
c#
azure
git
spss
scikit-learn
pandas
pig
mysql
docker
numpy
d3
pytorch
caffe
keras
mongodb
cassandra
hbase
Technical Skills
100
600
1100
1600
2100
2600
# of job posts
Learning many of these right now!


# of job posts per skill
python
r
sql
c/c++
java
excel
spark
hadoop
sas
aws
matlab
linux
scala
tableau
hive
tensorflow
javascript
nosql
perl
c#
azure
git
spss
scikit-learn
pandas
pig
mysql
docker
numpy
d3
pytorch
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mongodb
cassandra
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Technical Skills
100
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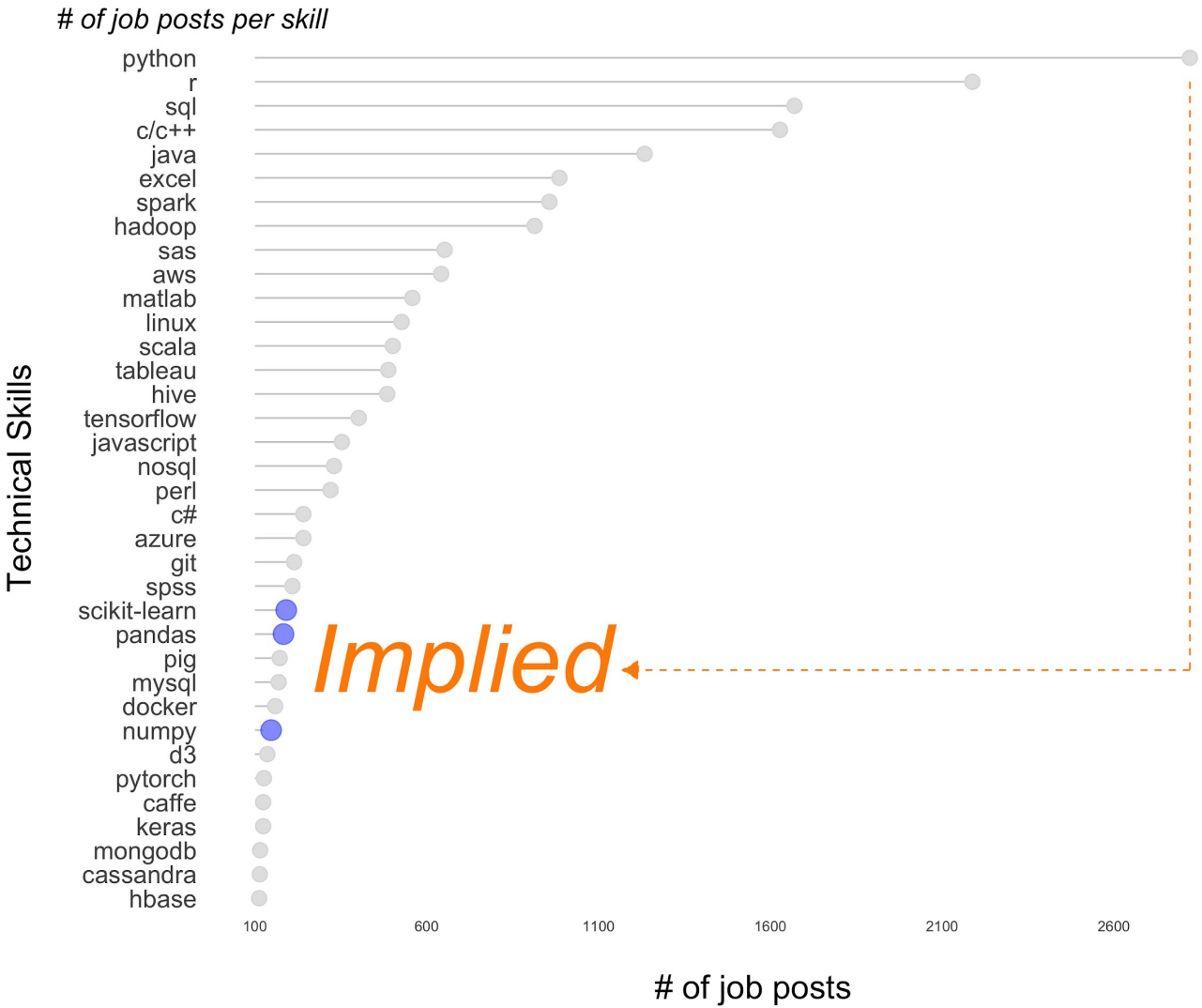
2600
# of job posts
Data Engineering


# of job posts per skill
Technical Skills
python
r
sql
c/c++
java
excel
spark
hadoop
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aws
matlab
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tableau
hive
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perl
c#
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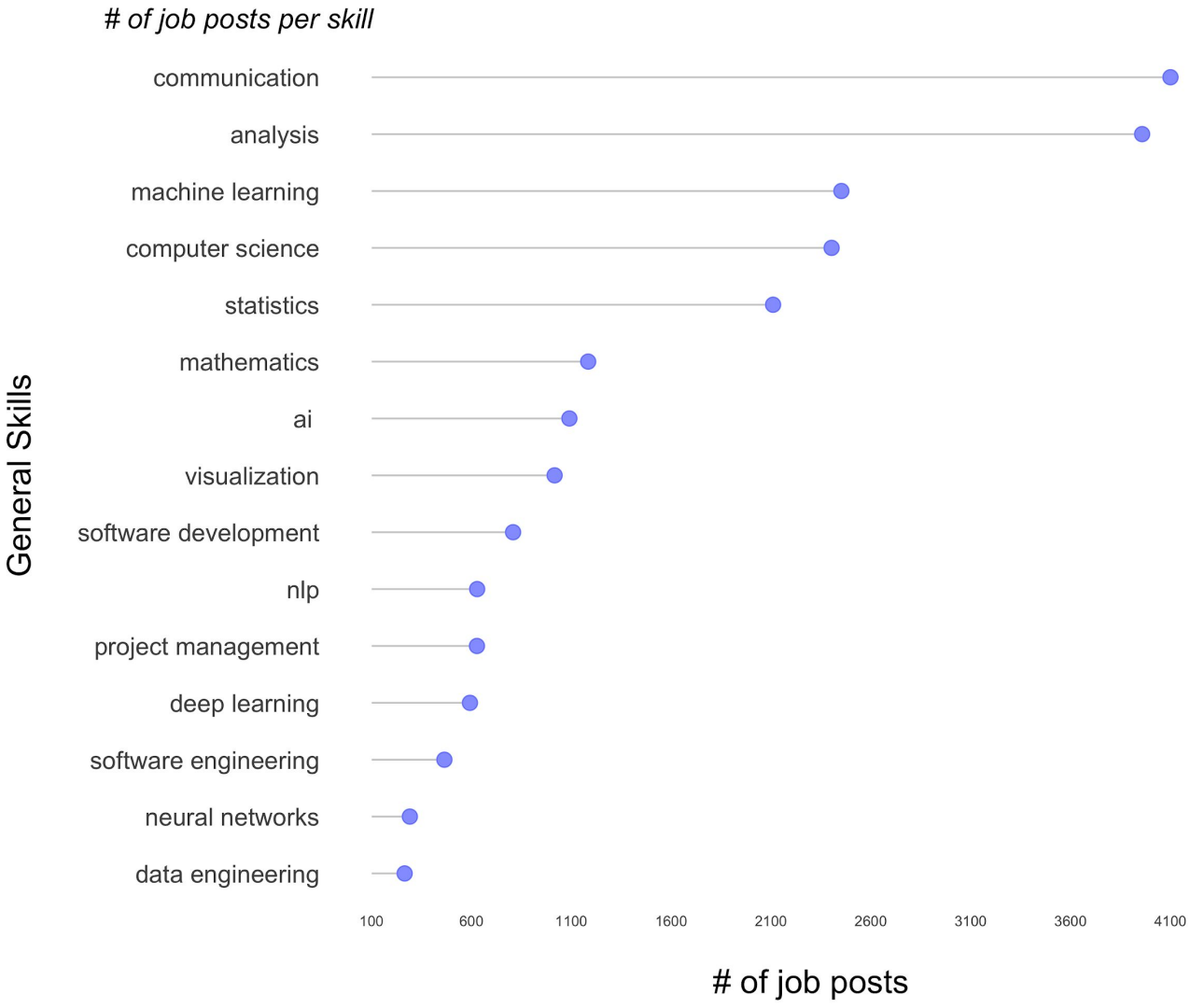
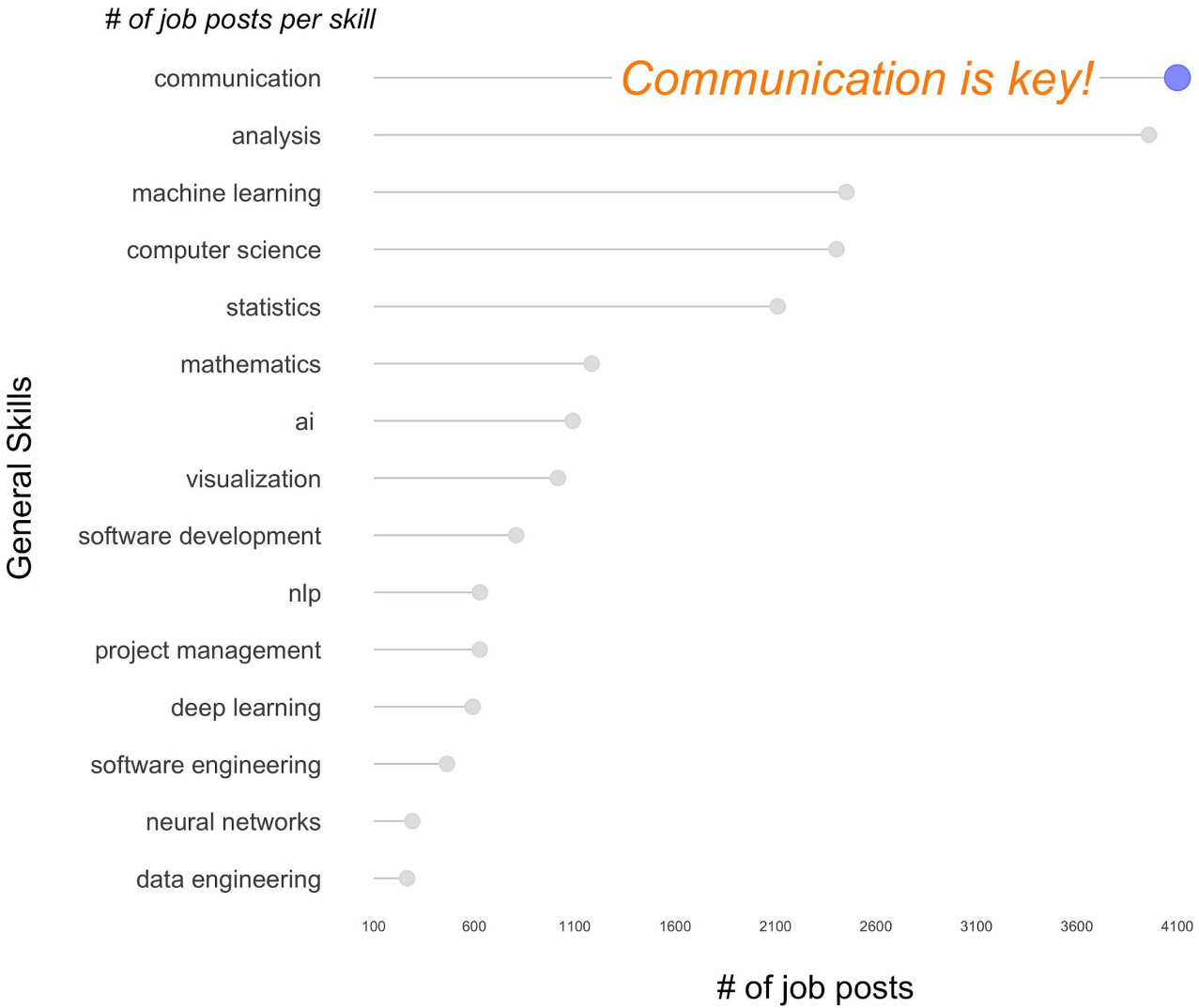
Implied
100
600
1100
1600
2100
2600
# of job posts


# of job posts per skill
communication
analysis
machine learning
computer science
statistics
mathematics
ai
visualization
software development
nlp
project management
deep learning
software engineering
neural networks
data engineering
General Skills
100
600
1100
1600
2100
2600
3100
3600
4100
# of job posts


# of job posts per skill
Communication is key!
communication
analysis
machine learning
computer science
statistics
mathematics
ai
visualization
software development
nlp
project management
deep learning
software engineering
neural networks
data engineering
General Skills
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600
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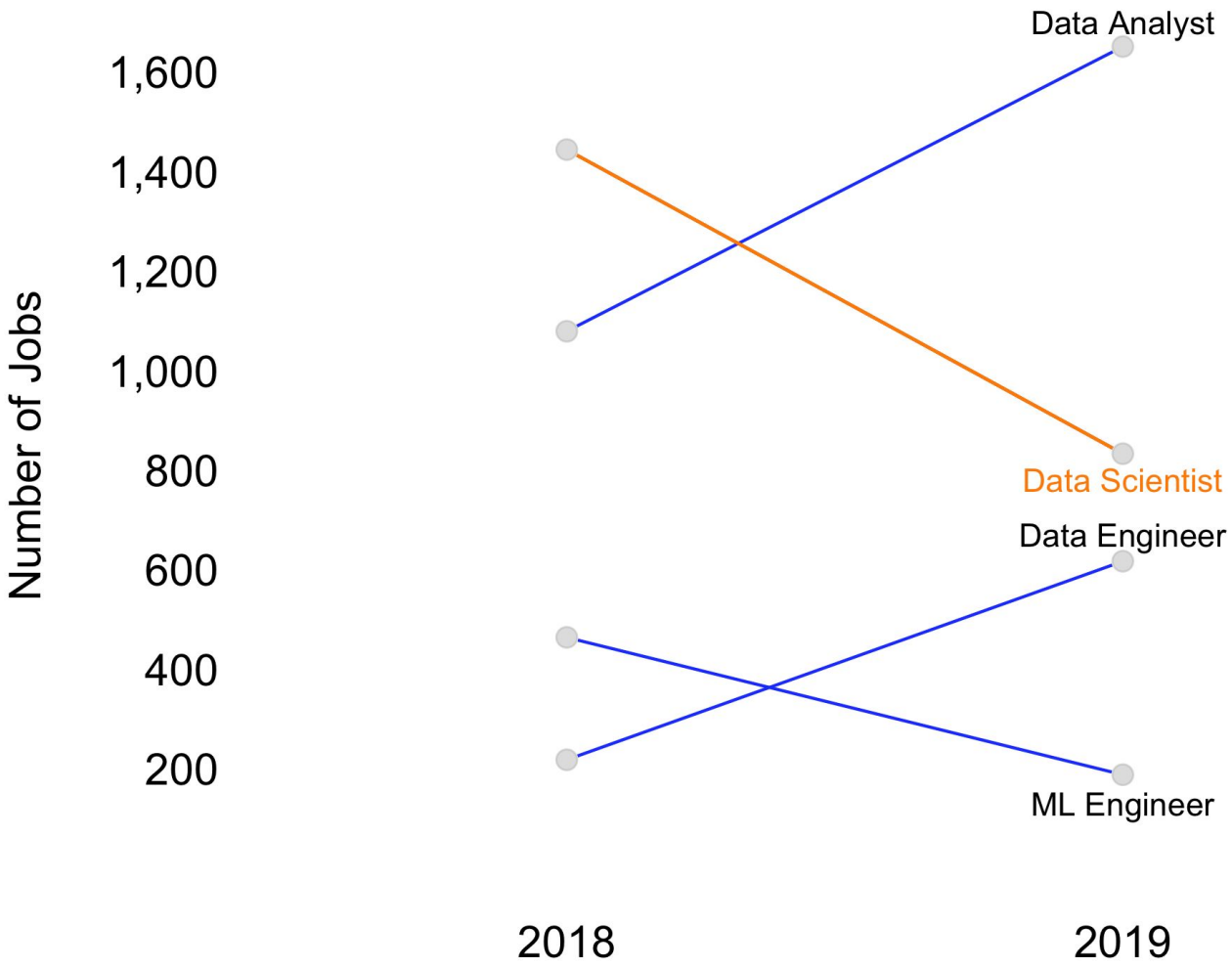
2100
2600
3100
3600
4100
# of job posts


Number of Jobs
1,600
1,400
1,200
1,000
800
600
400
200
2018
2019
Data Analyst
Data Scientist
Data Engineer
ML Engineer

Summary

- Majority of Data Science related roles are located in CA > NY > MA > WA
- Don’t be afraid to look into Data Analyst and Data Engineer
- Most important technical skills: Python, SQL
- Most important general skill: Communication

Thank you!