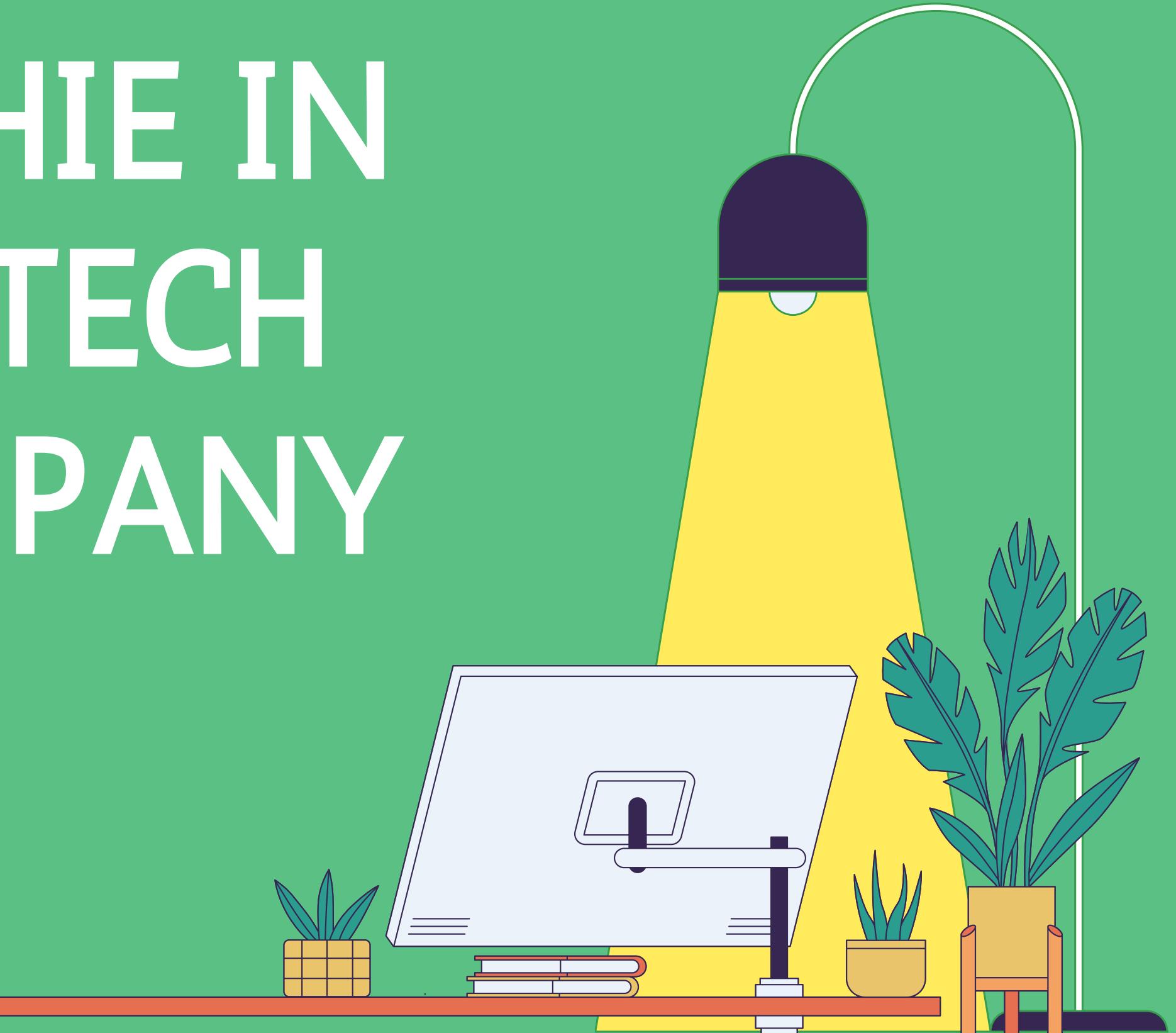


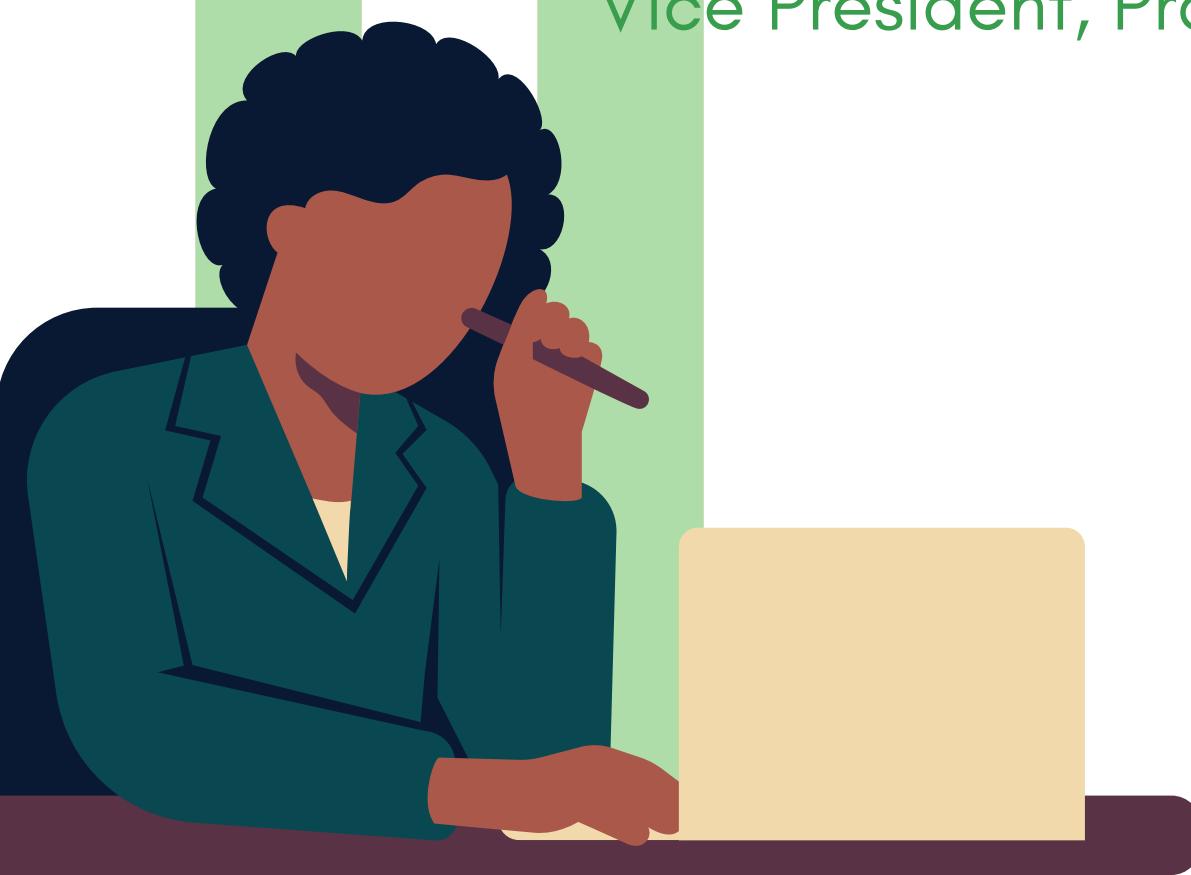
BRIDGING FRESHIE IN THE USA WITH TECH START-UP COMPANY

Brought to you by Group 1

- | | |
|--------------------|----------------|
| 1. Fatimah Murizal | 4. Aiman Hakim |
| 2. Aideel Safwan | 5. Najwa Razak |
| 3. Nur Nadhirah | 6. Ahmad Afiq |



CLIENT & STAKEHOLDERS



SUBRAMANIAN SIVAKUMAR
Chairman and CEO, Pratian Technologies



PATTABHI RAMAIAH RALLAPALLI
Vice President, Pratian Technologies

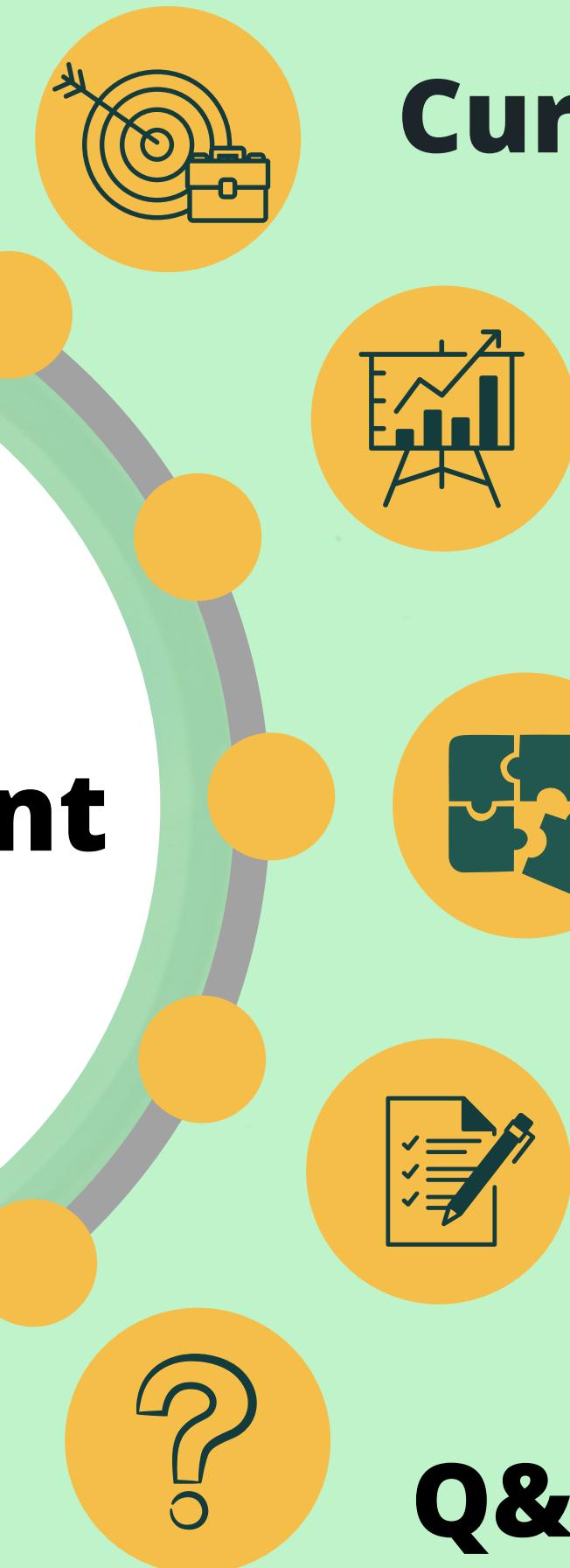


DR DAVE RICHARDS
Co-Founder, MIT Innovation Lab,
Chief Innovation Officer, Pratian Global
Innovation



Rubaneswaran S T
CEO Beyond4

Key indicator:
**Unemployment
Rate**



Current situation

Data in numbers

Strategy & Recommendation

Conclusion

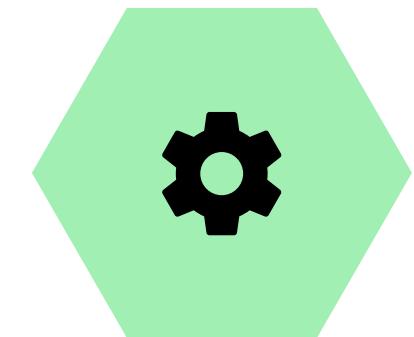
Q&A



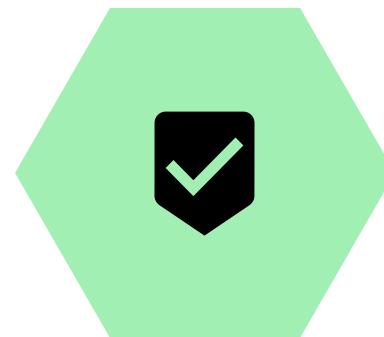
Objectives

- 1 **Analyze startups in the United States.**
- 2 **Analyze Fresh Graduates employment in the United States.**
- 3 **Study the relationship between Fresh Graduate employment and startup in the United States.**

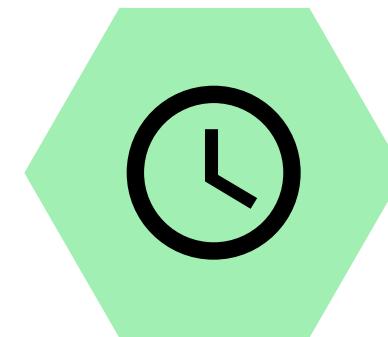
Our Challenges



**The amount of data
being collected**

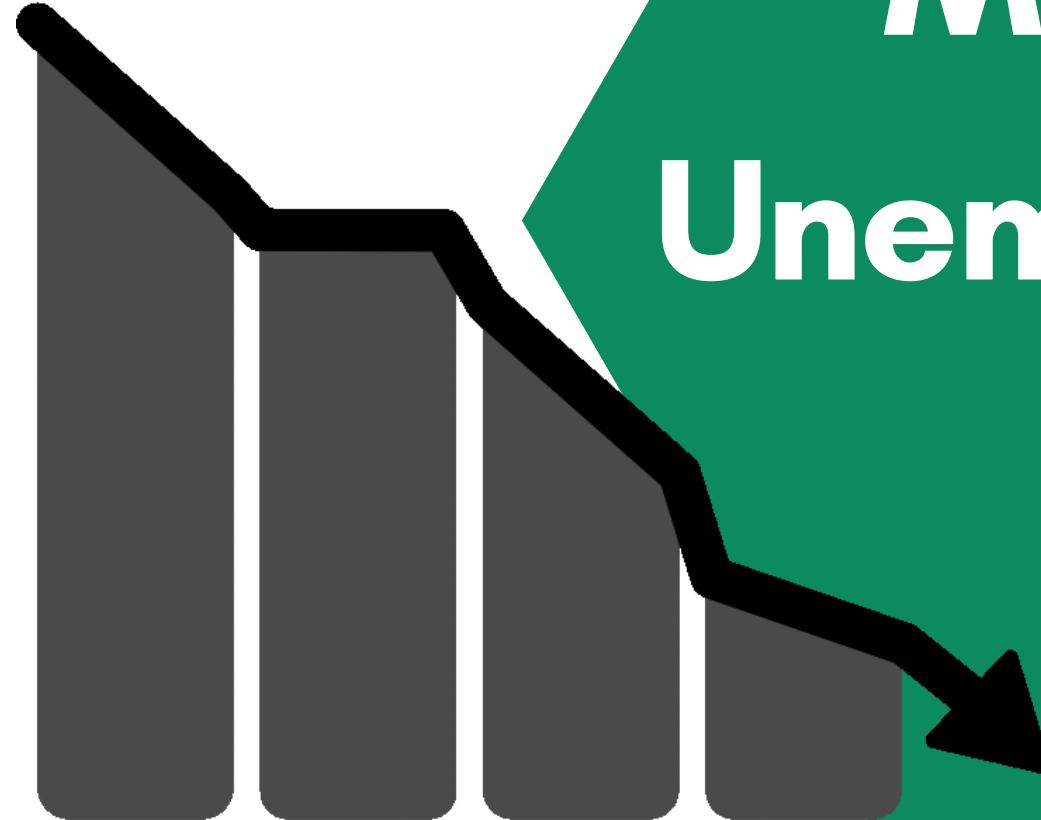


**Data from multiple
sources**



**Collecting wonderful
data**

Major Goals



Minimize
Unemployment
Rate



Minimize
Tech Startup
Failure



THE REAL SITUATIONS FOR FRESH GRADUATES UNEMPLOYMENT



1

Young adults struggling to build a career more so than older adults.

2

Job availability has been narrowed.

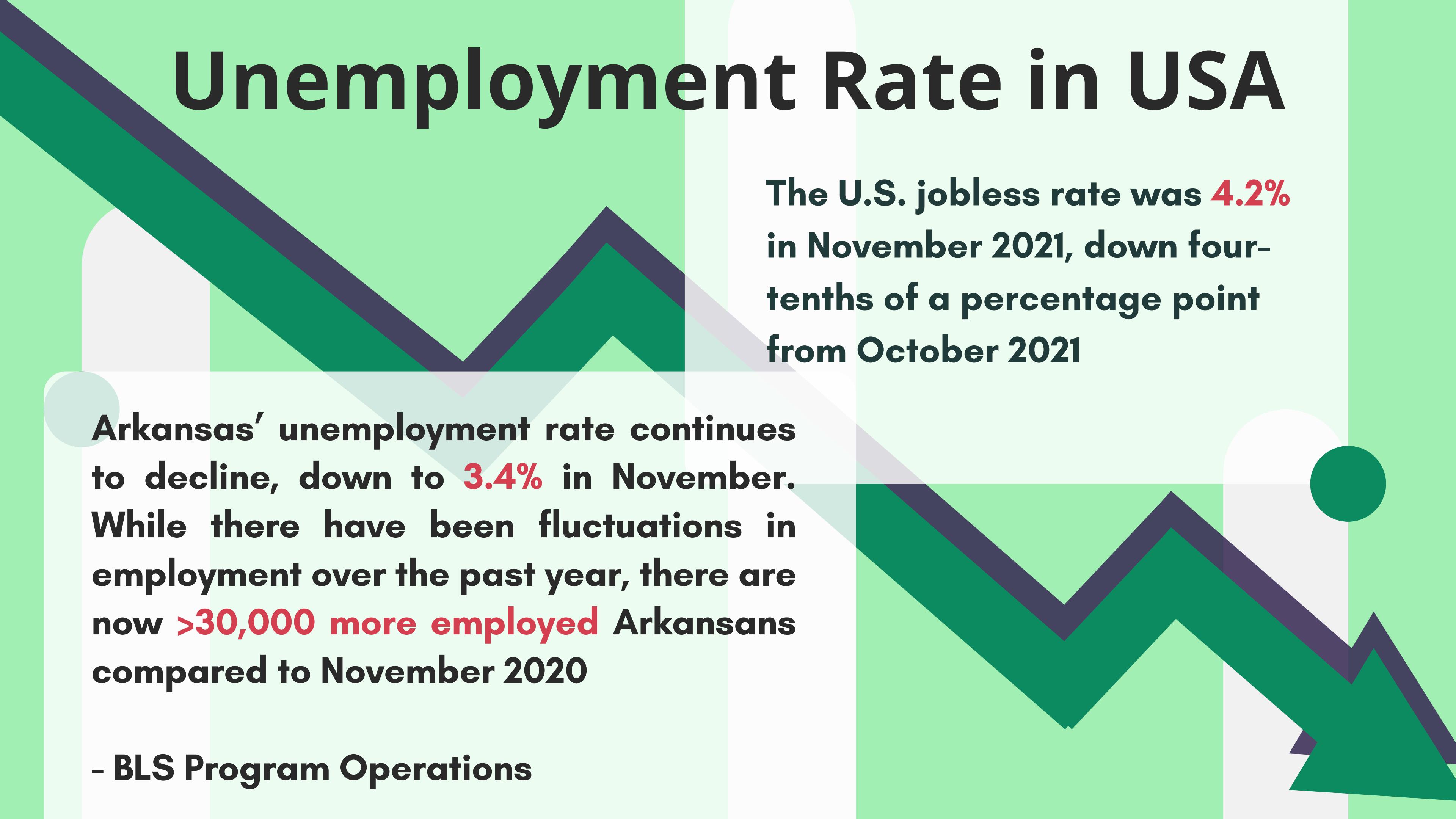
3

College graduates are working against labour force demands.
To find and maintain an adequate life-long career.

4

Hard to find post-graduation jobs - due to the types of jobs available that match their degree qualifications are less in demand. Counteracts the time and training dedicated to obtain the degree that the graduate is not using.

Unemployment Rate in USA



The U.S. jobless rate was **4.2%** in November 2021, down four-tenths of a percentage point from October 2021

Arkansas' unemployment rate continues to decline, down to **3.4%** in November. While there have been fluctuations in employment over the past year, there are now **>30,000 more employed Arkansans** compared to November 2020

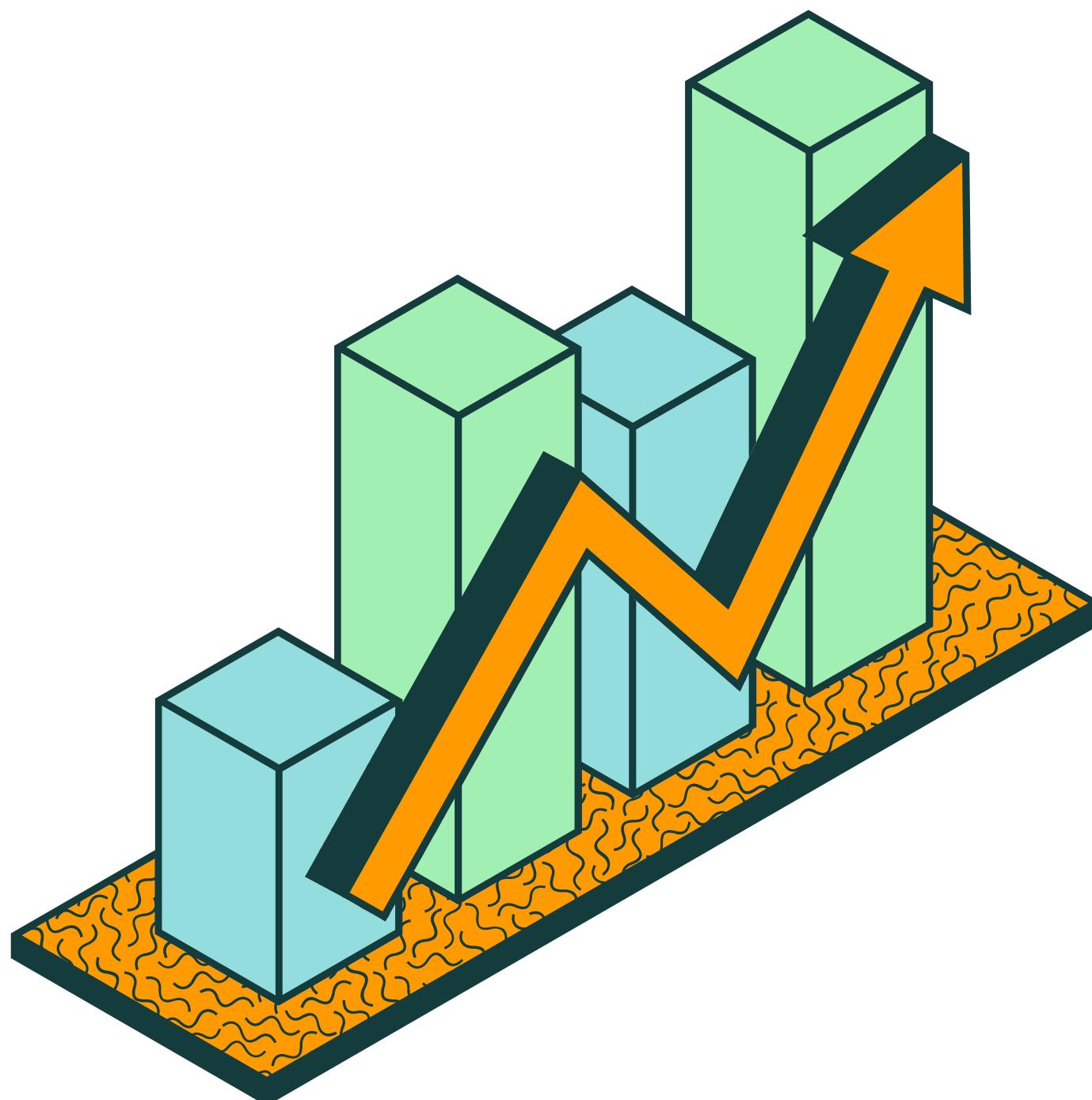
- BLS Program Operations

Unemployment in USA

- Employment rate of computer & IT occupations will grow **12% from 2018-2028** (US Bureau of Labor Statistics)
- There will be **>500 thousand** new jobs in the IT sectors.
- Unemployment rate of recent CS graduates has spiked to **7.8%** due to their lack of real-time practical experience.
- IT employers takes **50% longer** to hire candidates than other recruiters as they want highly qualified developers with exceptional coding skills.



What is a Start Up?



- Leading business model that **drives innovation** and **economic growth** across the world.
- United States is the leading country with more than **50,000 startups**.
- The manifestation of creative and ambitious entrepreneurs who have amazing ideas.
- Based on Bureau of Labor Statistics (BLS), there are **2.5 people per each job opening**.
- The **number of job openings has exceeded the level of unemployment**.

**9 OUT
OF 10
STARTUPS FAIL**

source: Startup
Genome, 2019

7.5 OUT

OF 10

VENTURE-BACKED
STARTUPS FAIL

source: Shikhar
Ghosh

FAILED TECH STARTUP

**11 - 50
EMPLOYEE**



SOURCE: FAILORY

How Do They Survive?

- More startups will begin to **collaborate** and become open to **partnerships**.
- In 2020, **Big Data** will become an **essential** component for digital marketing, healthcare, supply chain management, industry, etc.
- Startups that don't accept Big Data will **struggle**.
- According to one research, data production by the end of 2020 will increase by **4300%**.



40%

STARTUP

**Able to become
profitable**

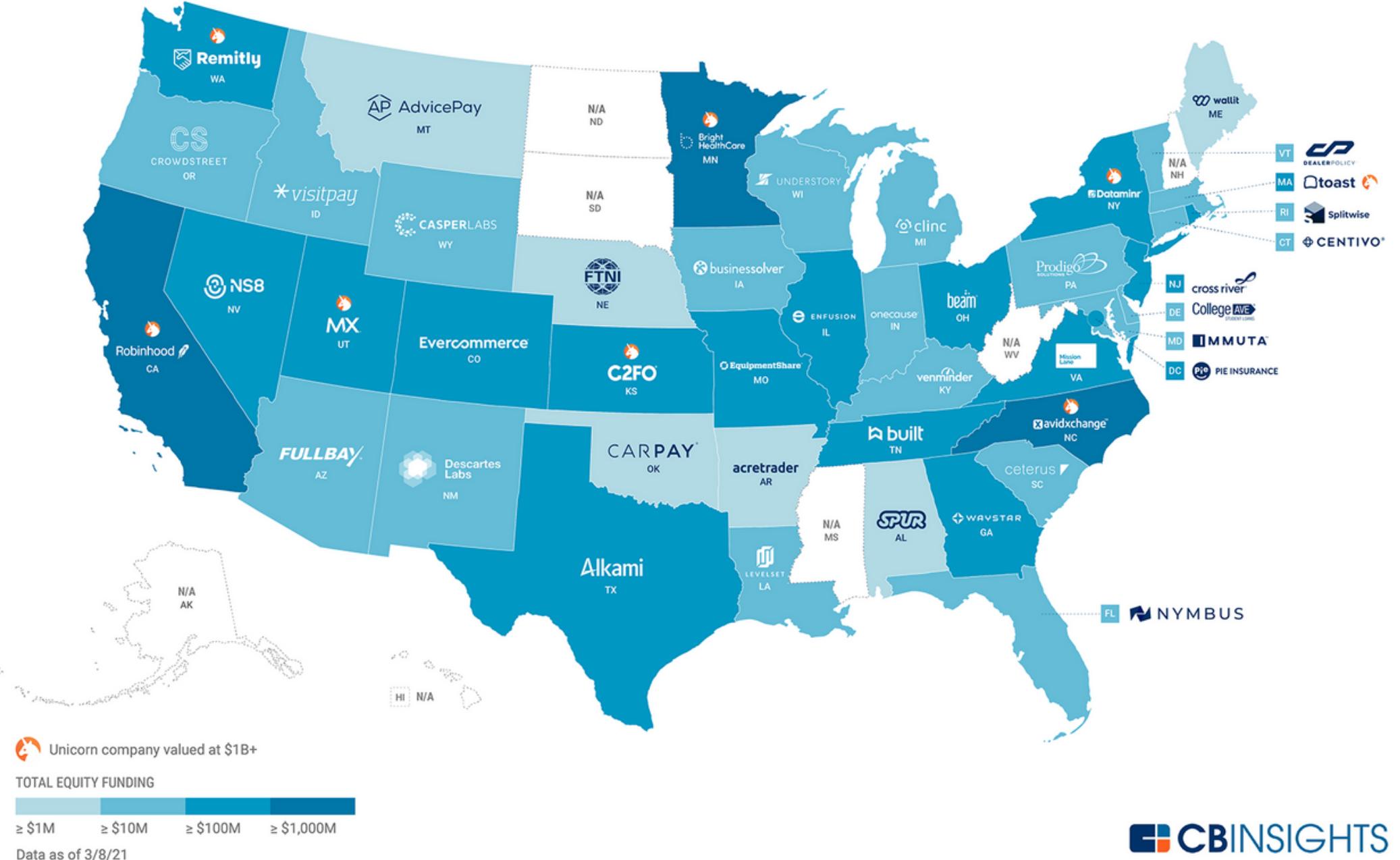


US FinTech Startups

Investors are backing huge deals, with **Q1'21 already setting the record for total mega-rounds** in a quarter. Hence, resulting in the **highest funding total for a quarter since Q2'18**

THE UNITED STATES OF FINTECH STARTUPS

The most well-funded private, VC-backed fintech companies by state. Our analysis ranks companies based on total disclosed equity funding and only considers fintech companies that have raised a minimum of \$1M and have had an equity round since 2016.



Why StartUps can be a Perfect Place for Graduates

1

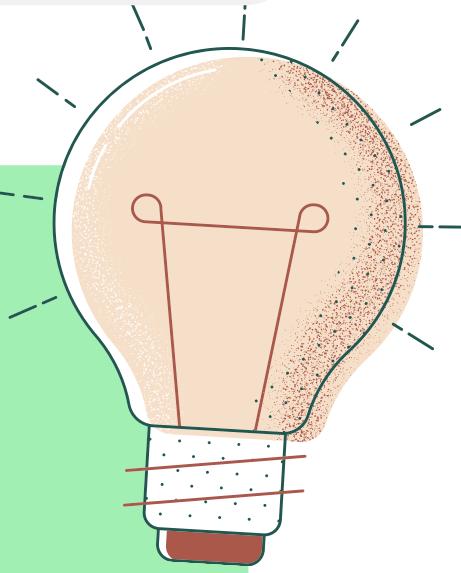
Growth opportunity is huge compared to corporates

2

There's no better way to see how to run a business

3

Don't have to battle with the academic recruiting cycle



TECH LANDSCAPE



Microsoft®
SQL Server®
Integration Services



Power BI Desktop



Microsoft®
SQL Server®
Management

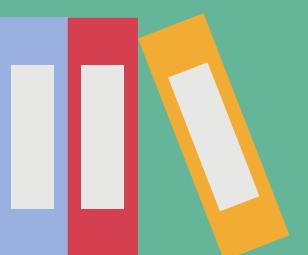
Data Migration Summary



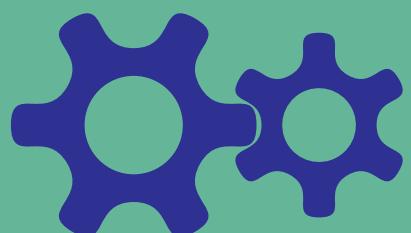
Create
Google Drive
Storage



Dataset
gathered
uploaded
on Excel



Control flow
in SSIS to
extract and
transform
data



Validate
& debug
in SSIS



Data Migration Summary

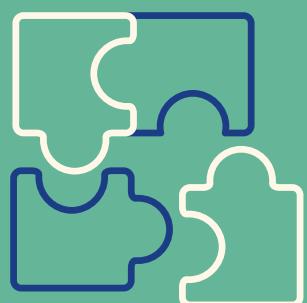
5

Load data
into SSMS



6

Data
warehouse
and schema
created



7

Link SSMS
Server with
Power BI



8

Visualization
data created
in Power BI



Data Source Docket

The screenshot shows a Microsoft Excel spreadsheet titled "Data Source Docket". The spreadsheet contains a table of startup data with columns for Name, States, Category, Hiring, WorkExperienceLevel, and Salary. A context menu is open over the data in column L, listing various data sources:

- DataDictionaryALL
- CommonPositionsOffered
- StartUpData_Categories
- StartUpData
- StartUpFunding
- StartUpData_Skills
- Startup Formation
- SF_Projected
- TechOccbyAge
- TechProjectedOccupation
- EmploymentBySector

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	startup_	Name	States	Category	Hiring	WorkExperienceLevel	Salary								
2	1 Cognite	TX			7 Open	Entry	\$ 99,024								
3	2 Concentric Software	CA			7 Open	Intermediate	\$ 63,300								
4	3 Globality	CA			11 Open	Intermediate	\$ 89,580								
5	4 Enigma Technologies	NY			11 Open	Intermediate	\$ 88,800								
6	5 Govini	PA			28 Open	Senior	\$ 94,728								
7	6 Ironclad	IN			28 Open	Entry	\$ 73,152								
8	7 Spruce Holdings	NY			9 Open	Intermediate	\$ 100,128								
9	8 Lever	CA			4 Open	Entry	\$ 57,336								
10	9 Movandi	CA			15 Open	Intermediate	\$ 89,556								
11	10 Nauto	CA			15 Open	Senior	\$ 94,236								
12	11 Instabase	CA, NY			11 Open	Entry	\$ 108,240								
13	12 Decibel Therapeutics	MA			15 Open	Senior	\$ 139,188								
14	13 Rally Rd.	NY			28 Open	Entry	\$ 97,344								
15	14 Gametime	CA			28 Open	Intermediate	\$ 83,700								
16	15 OnxMaps	MT			4 Open	Intermediate	\$ 87,672								
17	16 Houzz	CA			4 Open	Intermediate	\$ 124,752								
18	17 Hudl	NE			10 Open	Entry	\$ 57,180								
19	18 Genesis Global	FL			10 Open	Entry	\$ 62,412								
20	19 Papaya Global	TX			9 Open	Intermediate	\$ 79,272								
21	20 Illumio	CA			7 Open	Intermediate	\$ 117,000								

Below the table, a navigation bar lists the data sources:

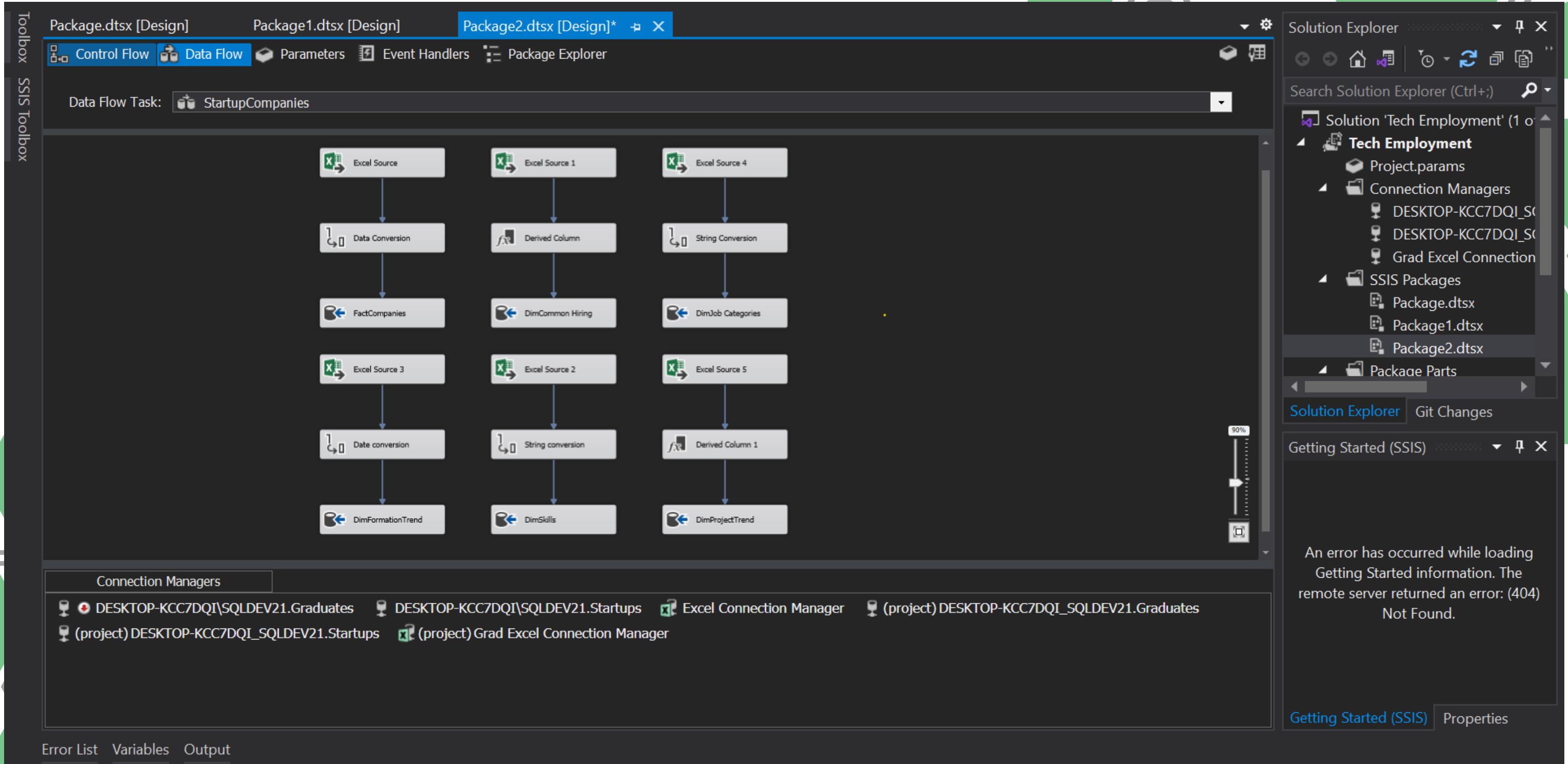
- DataDictionaryALL
- CommonPositionsOffered
- StartUpData_Categories
- StartUpData
- StartUpFunding
- StartUpData_Skills
- Startup Formation
- SF_Projected
- TechOccbyAge
- TechProjectedOccupation
- EmploymentBySector

Data Dictionary

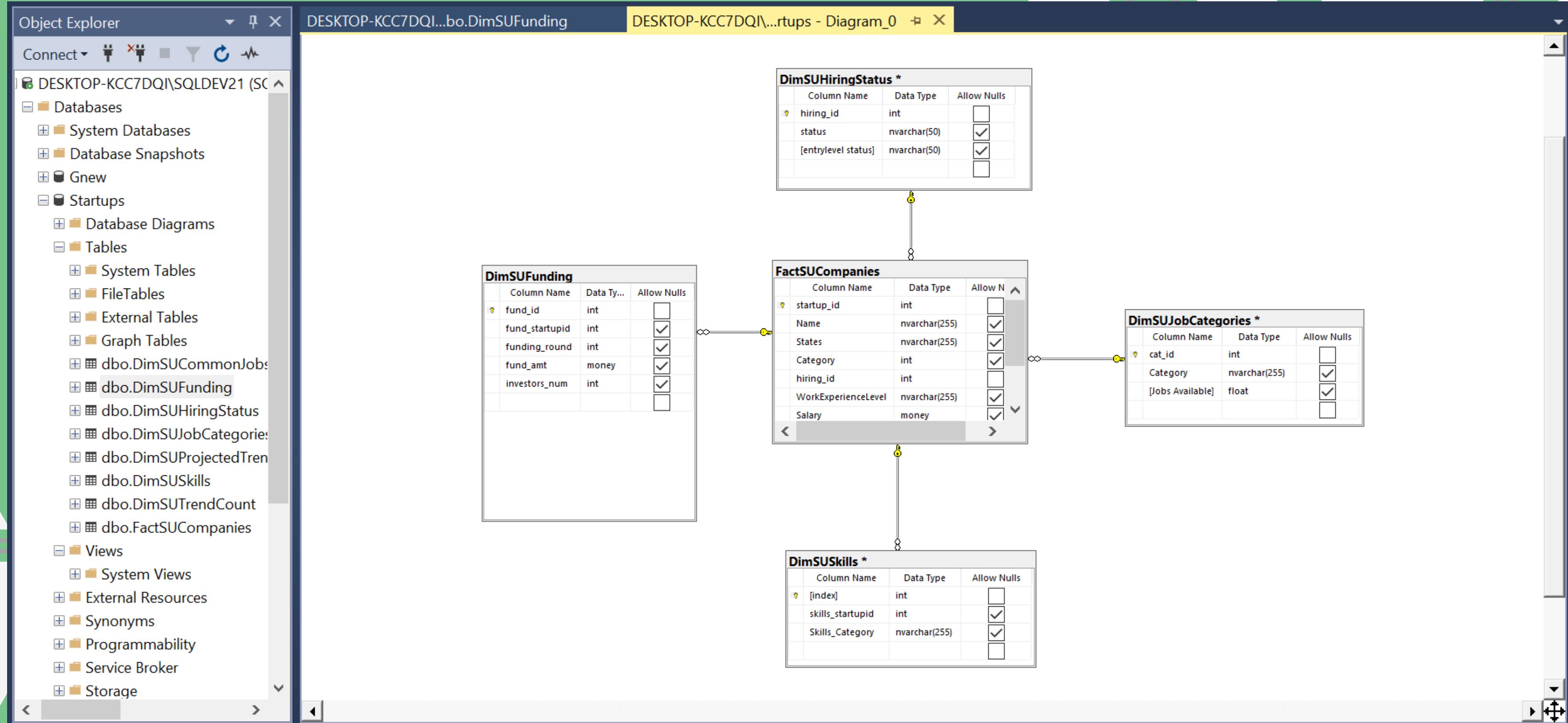


A	B	C	D	E	F	G	H
Section	Data Element Name	Description	Data Type	Is Mandatory	Nature of the Data Element	Category of the Data Element	Data Rules
Common Positions Offered	position_id	Index number for position offered that are common	Integer	Yes	Input	Master	INTEGER (E.g : 3000)
	Position	Position offered that are common	Decimal	Yes	Input	Transactional	DECIMAL (E.g : 26.5)
	Average_Salary	The number of salary offered in average value	Integer	Yes	Derived	Transactional	DECIMAL (E.g : 26.5)
StartUpData_Categories	cat_id	Index number for job categories that startups offer	Integer	Yes	Input	Master	INTEGER (E.g : 3000)
	Category	Job category/type	String	Yes	Input	Master	VARCHAR(255) (E.g : Engineering)
	Jobs Available	Number of jobs available	Integer	No	Input	Transactional	INTEGER (E.g : 3000)
StartUpData	startup_id	Index number for startups	Integer	Yes	Input	Master	INTEGER (E.g : 3000)
	Name	Name of startup company	String	Yes	Input	Master	VARCHAR(255) (E.g : NAICSRET)
	States	State code of company's location	String	Yes	Input	Transactional	VARCHAR(10) (E.g : CA)
	jobcat_id	The job type that the company is offering	Integer	Yes	Input	Transactional	INTEGER (E.g : 3000)
	Hiring	Whether the company is open to hiring	String	Yes	Input	Transactional	VARCHAR(15) (E.g : July)
	WorkExperienceLevel	Level of experience the company prefers	String	Yes	Input	Transactional	VARCHAR(200) (E.g : Information service)
	Salary	Average annual salary of the job position offered	Integer	Yes	Input	Transactional	INTEGER (E.g : 3000)
StartUp Funding	fund_id	Index number for fundings received by startups	Integer	Yes	Input	Master	INTEGER (E.g : 3000)
	startup_id	Index number for startups	Integer	Yes	Input	Master	INTEGER (E.g : 3000)
	funding_round	Number of funding rounds	Integer	Yes	Input	Transactional	INTEGER (E.g : 3000)
	fundamt	Total amount of fundings	Decimal	Yes	Input	Transactional	DECIMAL (E.g : 229.5)
	investors_num	Number of investors	Integer	Yes	Input	Transactional	INTEGER (E.g : 3000)
StartUpData_Skills	index	Index for list of skills that job companies are looking for	Integer	Yes	Input	Master	INTEGER (E.g : 3000)
	skills_startupid	(FK) Startup ID	Integer	Yes	Input	Transactional	INTEGER (E.g : 3000)
	Skills_Category	Set of skills that company lists in the job description	String	Yes	Input	Transactional	VARCHAR(255) (E.g : Engineering)
Startup Formation	naics_sector	NAICS sector code	String	Yes	Input	Master	VARCHAR(255) (E.g : NAICSRET)
	year	The year that the startups formed	Integer	No	Input	Transactional	INTEGER (E.g : 3000)
	Total Startup	The total number of startups formed in a year	Integer	No	Derived	Transactional	INTEGER (E.g : 3000)
SF_Projected	naics_sector	NAICS sector code	String	Yes	Input	Master	VARCHAR(255) (E.g : NAICSRET)
	year	The year that the startups are projected to form	Integer	No	Input	Transactional	INTEGER (E.g : 3000)

ETL Flow



Data Warehouse



Visualization

- Fresh Graduates Employment
- Employment Vs Unemployment
- Start Up



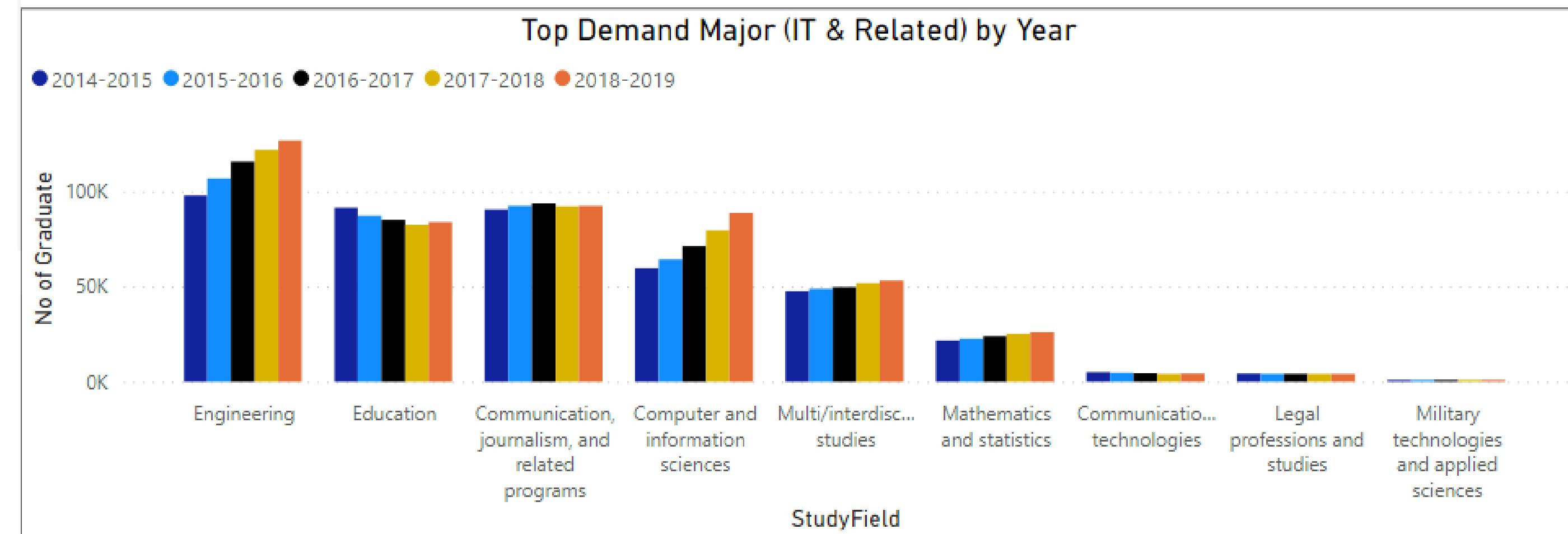
Fresh Graduate

71.68

Average of Grad Employment Population Ratio (%)

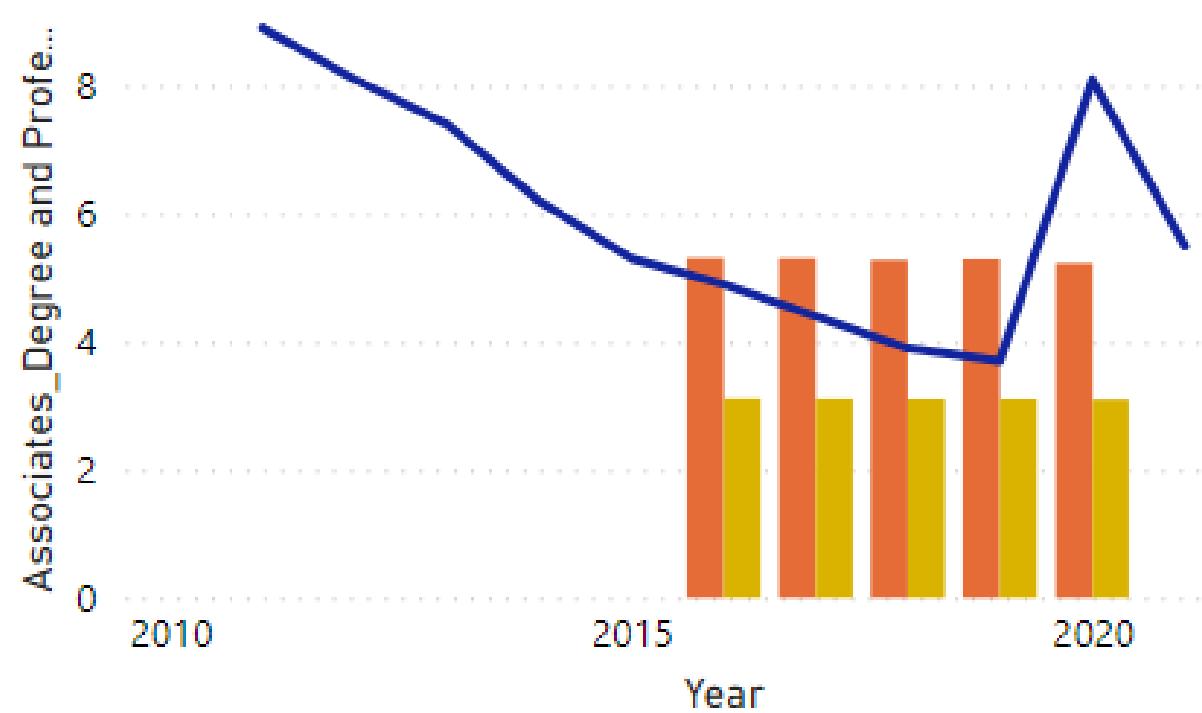
6.04

Average of Unemployment Rate(%)

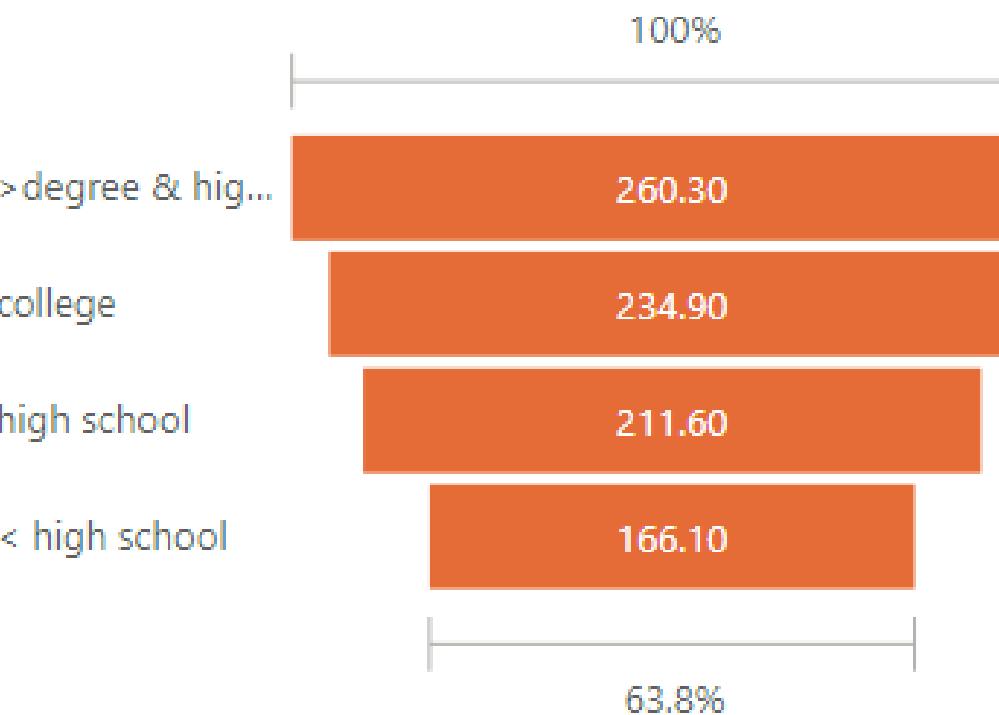


Unemployment Rate(%) of EDU Program by Year

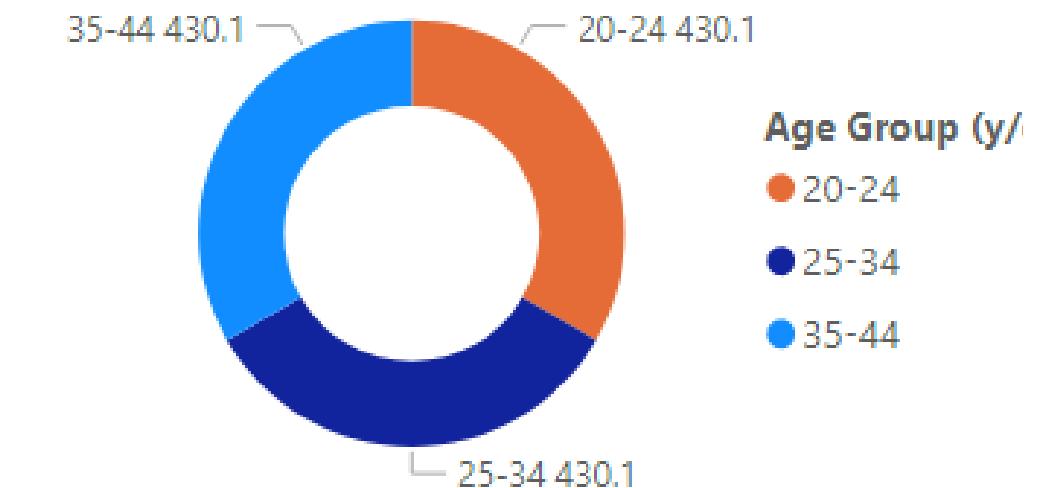
● Associates_Degree ● Professional_Degree ● Unemployment Rate(%)



The Average of Population Ratio of Employment in 2020 by Education Level (completed)



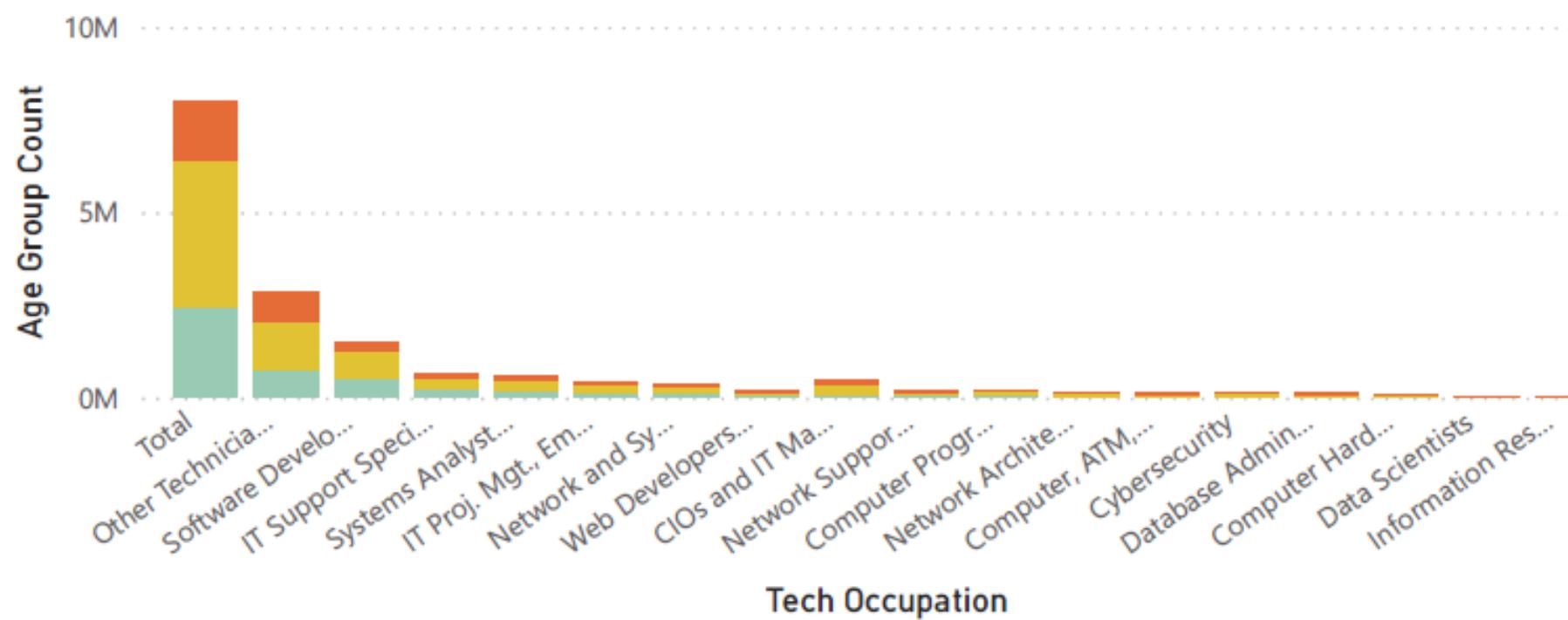
Grad Employment Population Ratio (%) by Age Group (y/o)



Employment Vs Unemployment

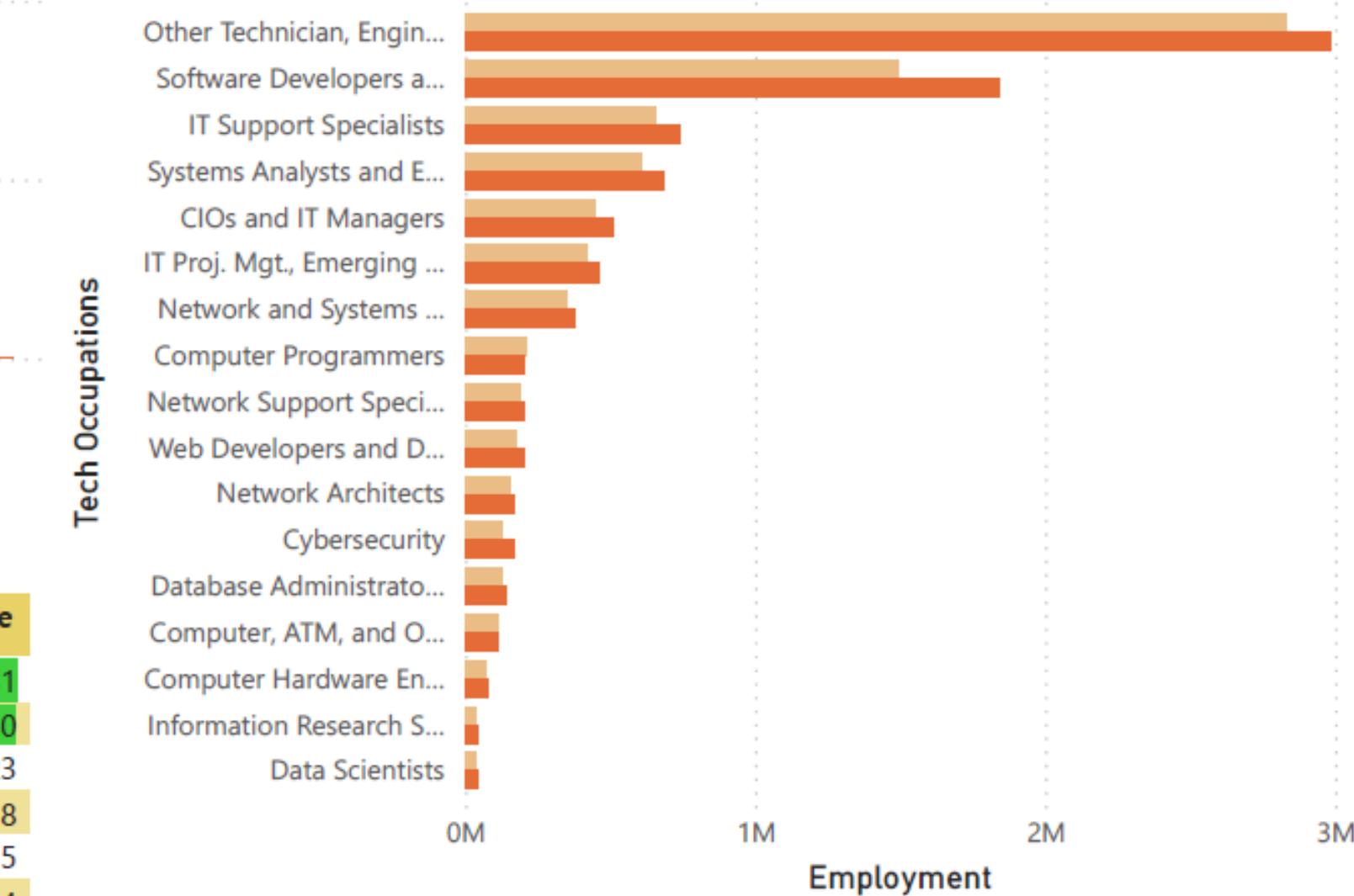
Age Group Count by Tech Occupation

● Age (19-34) Count ● Age (35-54) Count ● Age 55+ Count

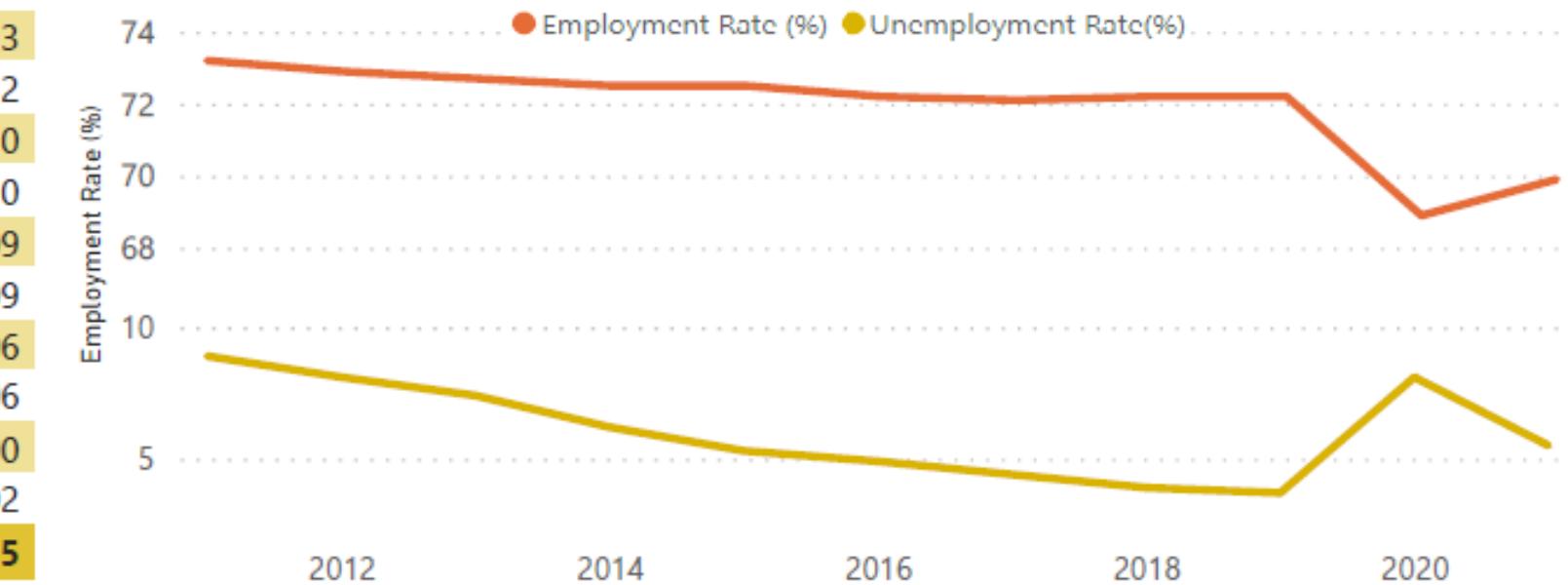


2020 Employment and 2030 Projected Employment by Tech Occupations

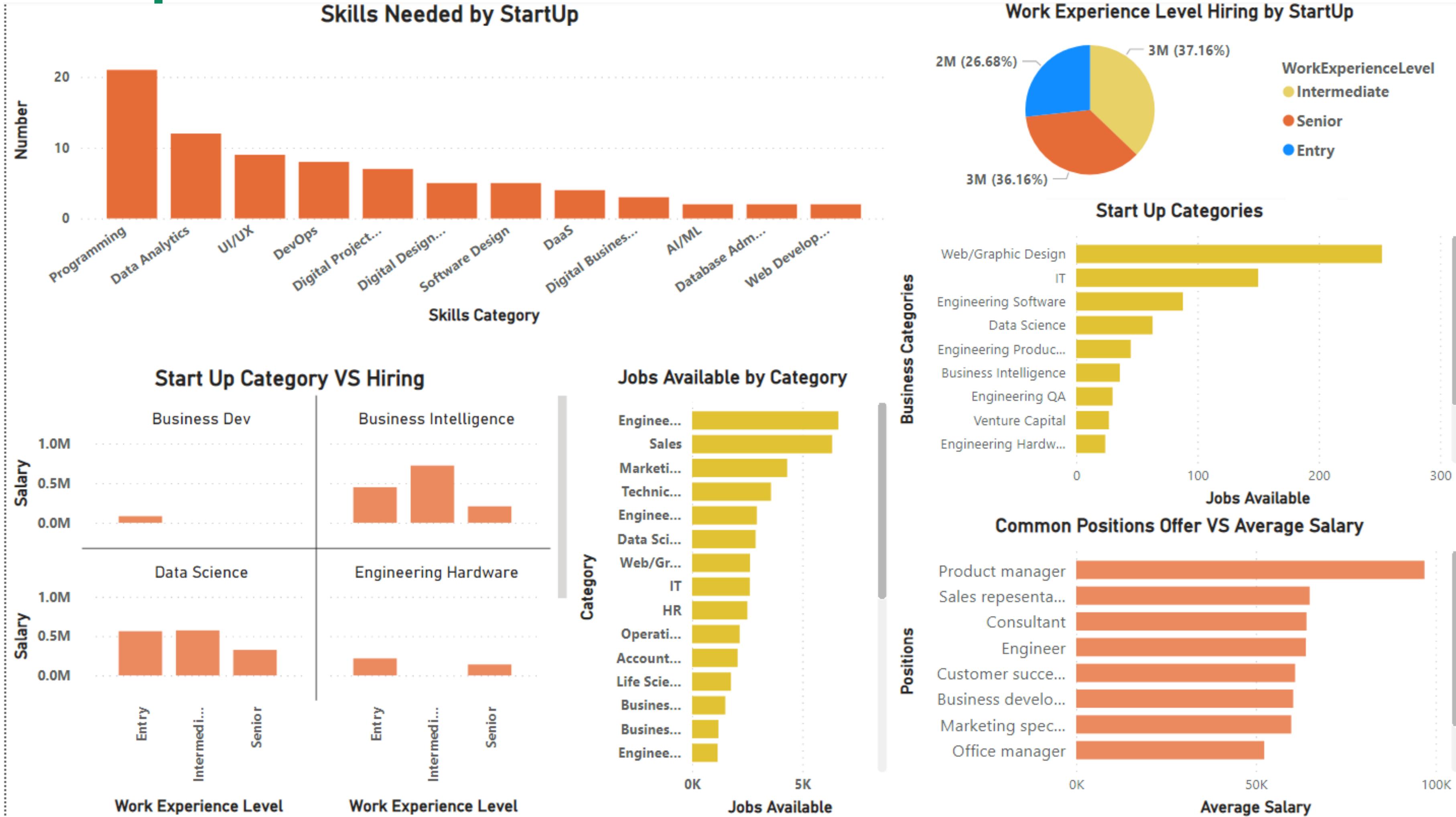
● 2020 Employment ● 2030 Projected Employment



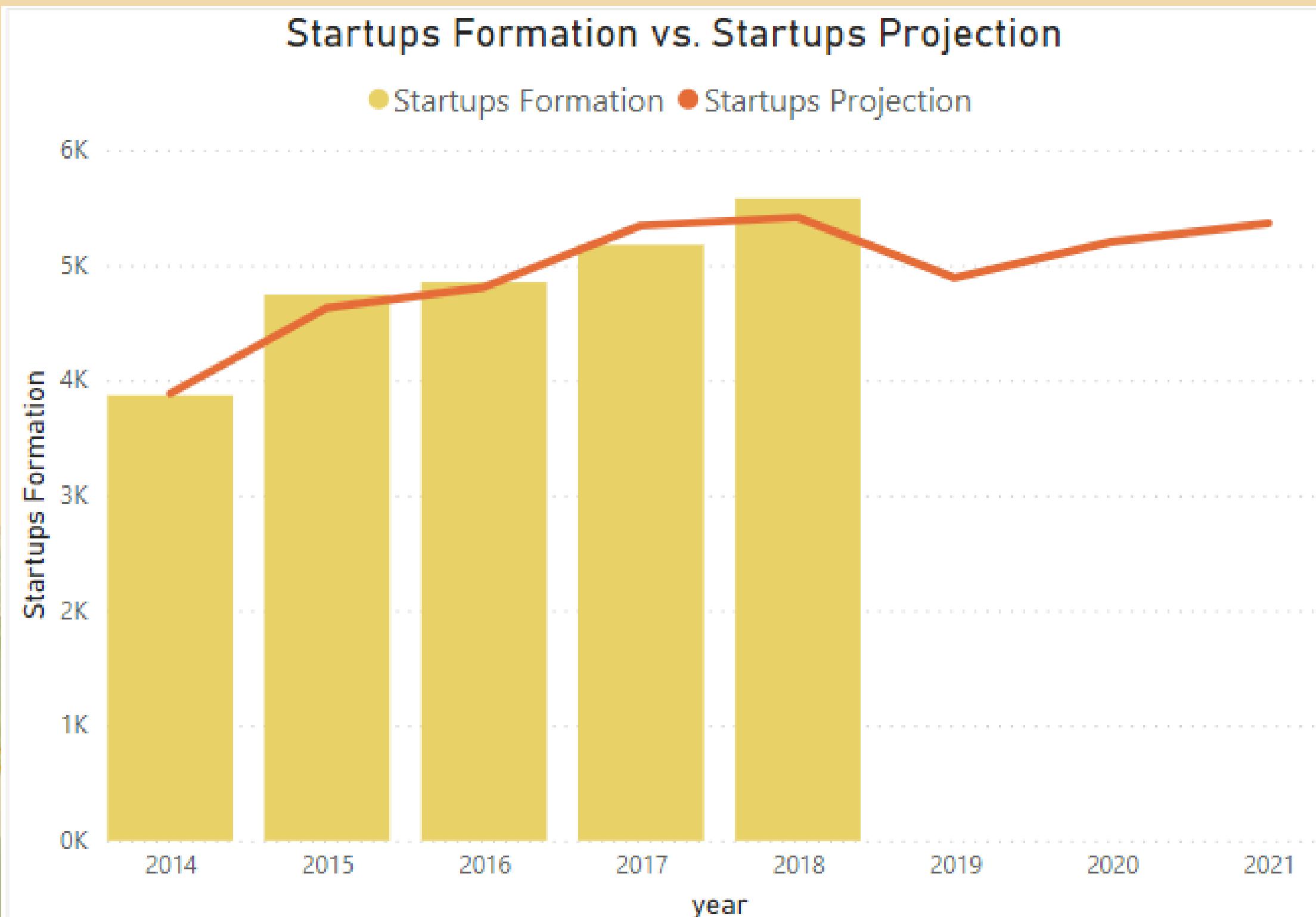
Employment vs Unemployment Rate (%) by Year



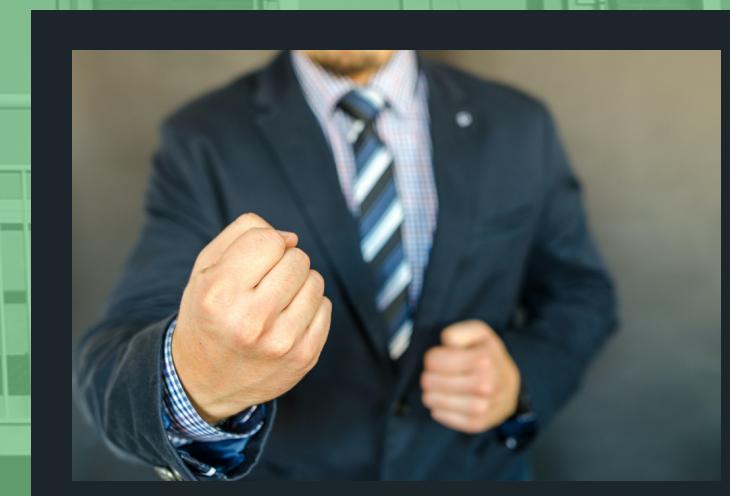
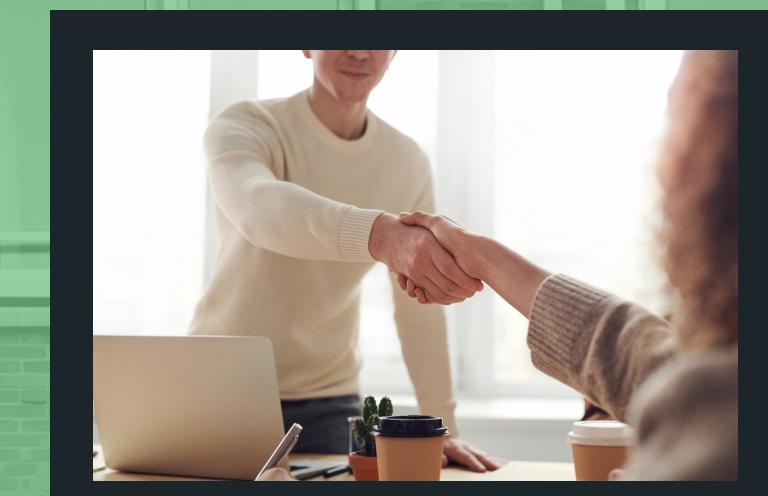
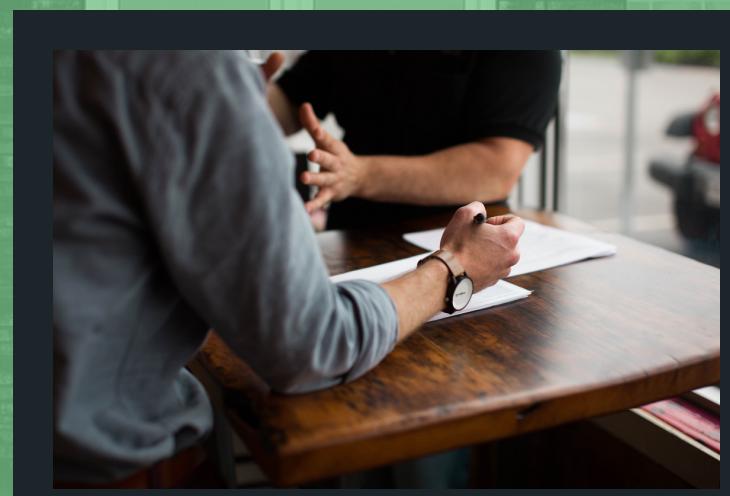
Start Ups



Start Ups in The Information sector (NAICS 51)



RECOMMENDATION



GATHERING TALENT

Diversifying recruiting approach by collaborating with educational institutions to develop the talent pipeline and recruit new digital talent.

INVEST

Invest in the existing high-quality programs that reconnect young adults to education and employment opportunities

EXPAND

Expanding partnership strategies

ESTABLISH

Establish a “Career Internship”

Conclusion



Strengthening up start ups with opportunities and fundings can help in maximizing employment in USA



Collaborations between students and start up help in enhancing their skills while nurture hidden talents

Do you have any questions?



Thank you!

