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Overview of the datasets

We have five distinct datasets, each offering unique insights into industries, countries, skills, and economic indicators.

Dataset 1: Industries Classification provides a detailed view of industries categorised by the International Standard Industrial Classification (ISIC) system. It comprises six columns, including 'isic_section' and 'isic_section_name' for section code and name, 'isic_division' and 'isic_division_name' for division code and name, 'industry_sk,' and 'industry_name' for unique identification numbers and names, and 'Industry_group_sk' and 'Industry_group_name' for broader industry group data. This dataset is valuable for comprehensive industry analysis, supporting market research, economic assessments, and business insights.

Dataset 2: Country Economic Indicators offers a holistic perspective on countries' economic profiles. Featuring nine columns, it includes 'country_code' and 'country_name' for country identification, 'wb_region' and 'wb_income' for World Bank region and income group categorisation, 'isic_section_index,' 'isic_section_name,' 'industry_id,' and 'industry_name' for industry classification, and growth rate data for the years 2015 to 2019. This dataset is instrumental for cross-country economic analyses, identifying regional trends, and exploring industry-specific growth dynamics.

Dataset 3: Skills and Industries Over Time focuses on skills and industries with seven columns. 'Year,' 'isic_section_index,' 'isic_section_name,' 'industry_name,' 'skill_group_category,' 'skill_group_name,' and 'skill_group_rank' enable exploration of skill-demand trends and skill-occupation relationships over time. This data is beneficial for labour market analysis and workforce planning.

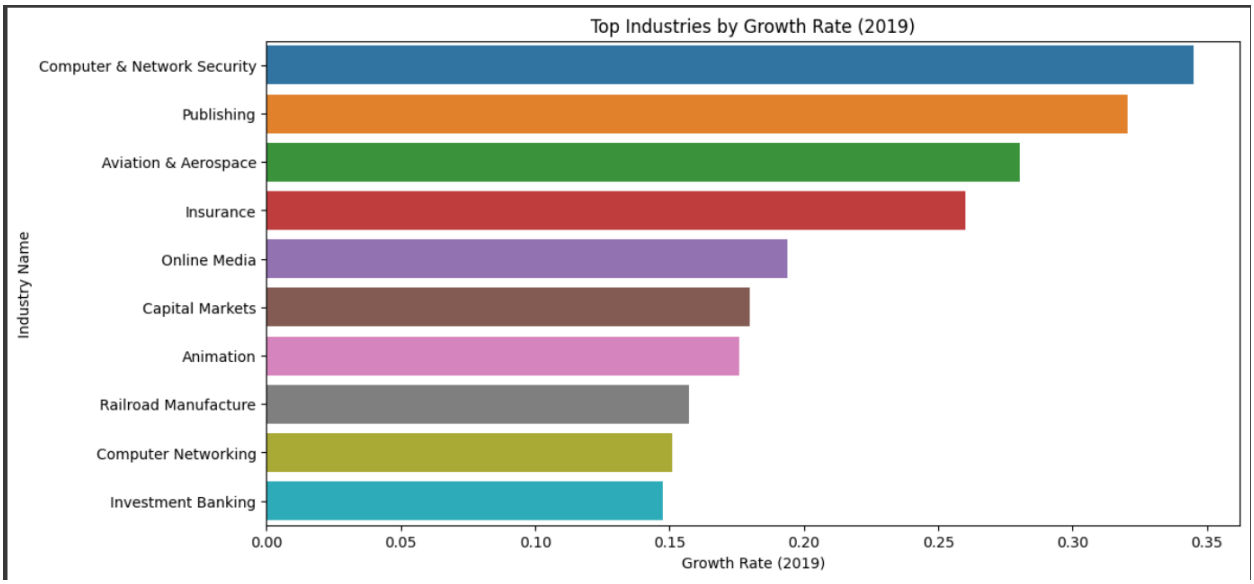
Dataset 4: Workforce Dynamics is centred on skills and industries, featuring seven key columns: 'year,' 'skill_group_category,' 'skill_group_name,' 'isic_section_index,' 'isic_section_name,' 'industry_name,' and 'skill_group_penetration_rate.' It allows for in-depth analysis of skill adoption rates across various sectors, aiding in informed workforce development strategies and labour market skill trend assessments.

Dataset 5: Country Skills and Economic Metrics offers insights into skill-related metrics and economic indicators across countries. With six columns, including 'country_code,'

'country_name,' 'wb_income,' 'wb_region,' 'skill_group_id,' 'skill_group_category,' and 'skill_group_name,' it also includes skill prevalence rates per 10,000 individuals for the years 2015 to 2019. This dataset is a valuable resource for understanding the relationship between skill availability and economic factors, facilitating cross-country comparisons and insights into the impact of skills on income and regional dynamics over time.

Top 10 Industries with the highest growth rate in 2019

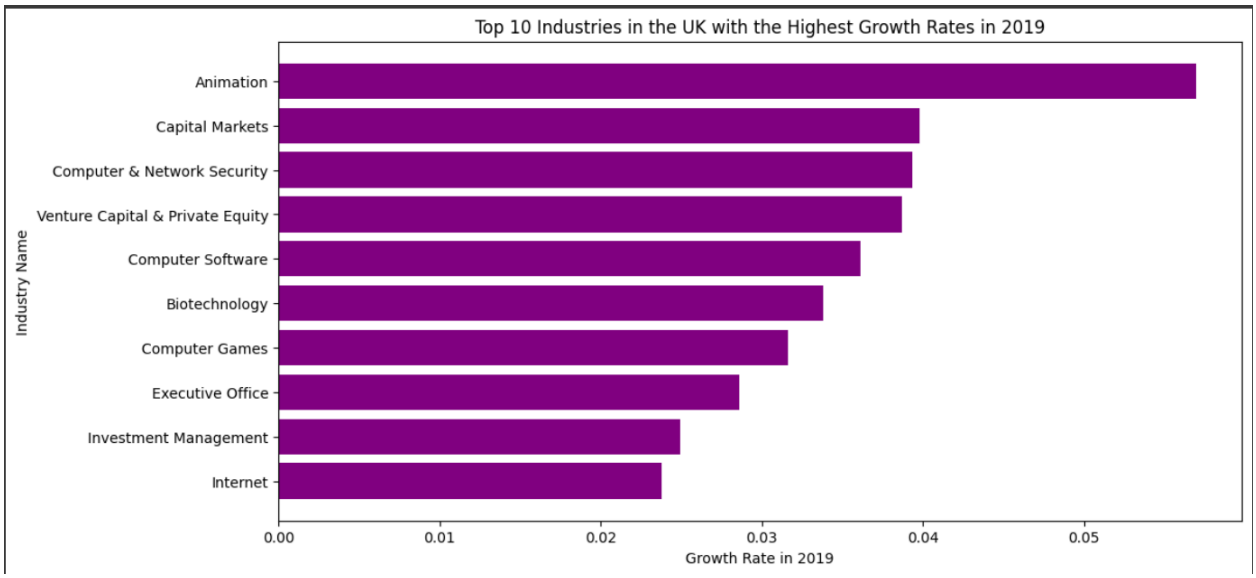
Our analysis of industry growth rates 2019 in the United Kingdom has revealed a compelling landscape. Computer and Network Security emerged as the industry with the highest growth rate, showcasing its robust performance and significance. This sector's remarkable growth is followed by a diverse range of industries, each making its mark in the market.



Top 10 Industries in the UK with the highest growth rate in 2019

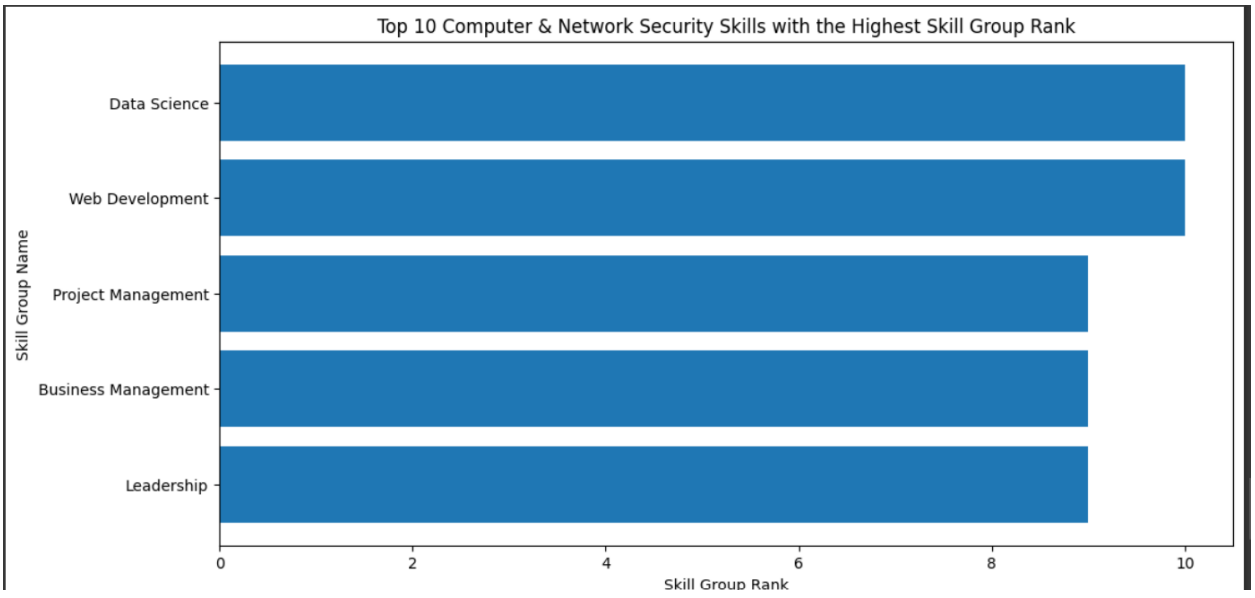
In the analysis of industries in the United Kingdom, specifically focusing on growth rates in 2019, it becomes evident that the animation industry took the lead with the highest growth rate. Following was the capital market industry, displaying robust growth as well. Notably, the computer and network security sector emerged as a significant player, with growth rates only slightly behind that of the capital market. However, it is essential to note that the internet industry exhibited the lowest growth rate among the top 10 industries analysed. This data provides valuable insights into the dynamics of these

industries within the UK economy in 2019, suggesting areas of potential investment or further exploration for businesses and policymakers.



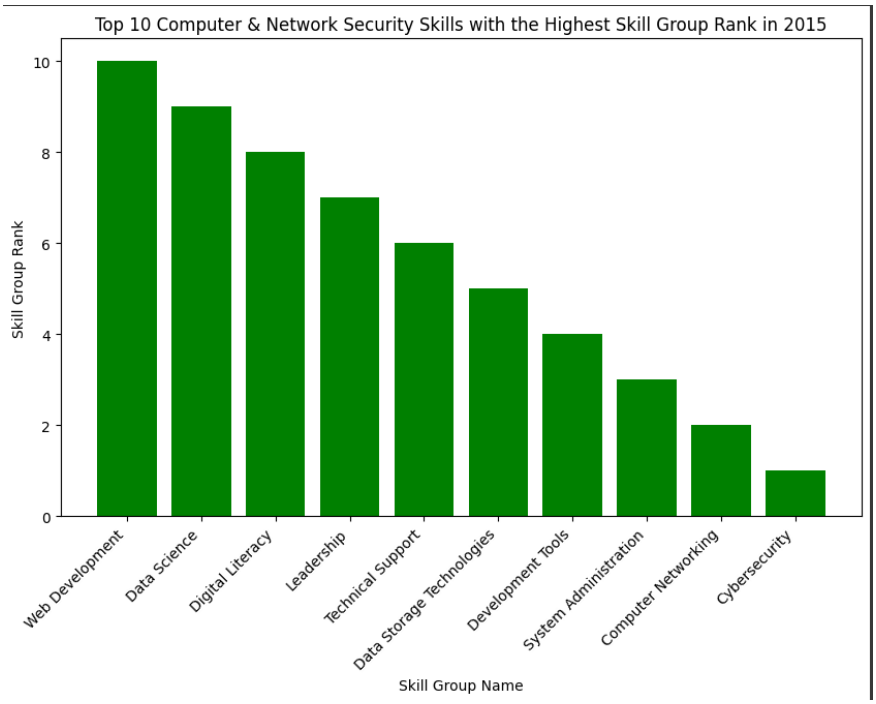
Top 10 Computer & Network Security Skills from 2015-2019

In examining Computer and network security skills, the data reveals a compelling hierarchy within this specialised domain. Notably, data science emerged as the paramount skill, securing the highest skill group rank. In close pursuit was web development, an equally pivotal skill, achieving the highest possible rank of 10. Additionally, project management, business management and leadership were prominently ranked, each attaining a commendable skill group rank of 9. This data provides a clear picture of the critical skill landscape within the Computer and Network Security industry, underscoring the significance of these skills in this evolving sector.



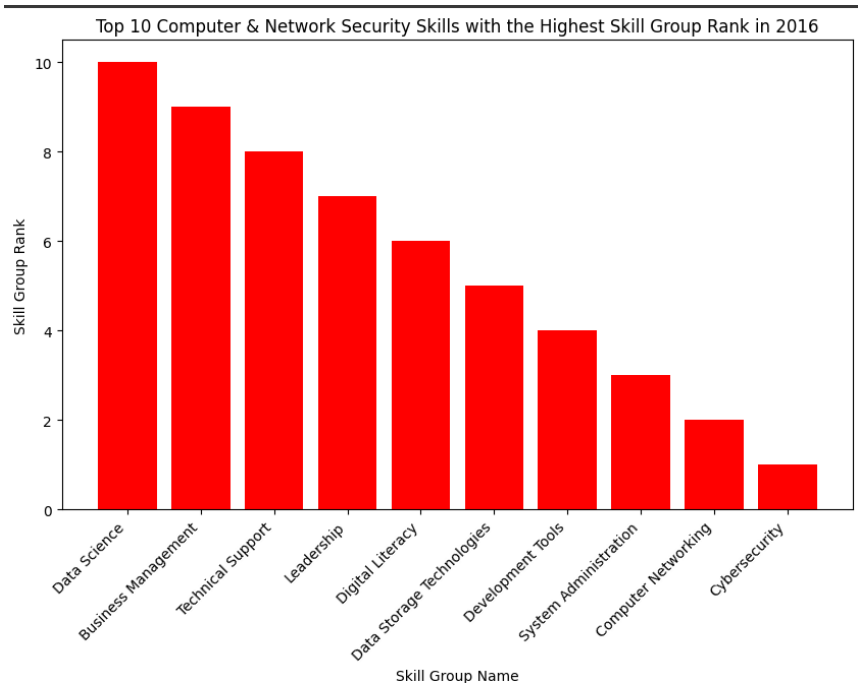
Analysis of Top Computer & Network Security Skills in 2015

Our examination of Computer and Network Security skills precisely for 2015 reveals a compelling hierarchy within this critical field. Notably, web development emerges as the pinnacle skill, securing the highest skill group rank, denoted by an impressive 10. This skill's significance is underscored by its commanding position in the rankings. Close behind, data science takes place with a commendable skill group rank of 9, further emphasising its vital role within the industry. Interestingly, in this context, cybersecurity, while central to the domain, exhibits a unique profile, with a skill group rank of 1. This suggests that the cybersecurity landscape in 2015 was characterised by specialised skills contributing to its overall strength.



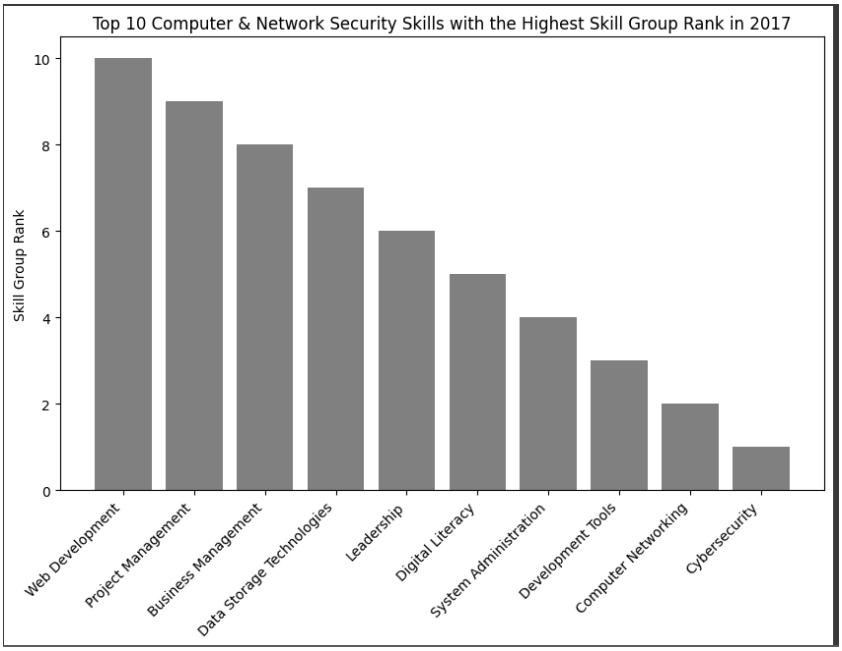
Analysis of Top Computer & Network Security Skills in 2016

Our analysis of Computer and Network Security skills in 2016 reveals a distinctive landscape within this crucial industry. Notably, data science and business management skills emerge as the frontrunners, securing the highest skill group ranks, denoted by an impressive 10 and 9, respectively. These rankings underscore the significance of these skills within the sector, highlighting their central roles in the rapidly evolving landscape of Computer and Network Security. Intriguingly, cybersecurity, often at the forefront of security concerns, exhibits a unique profile with a skill group rank of 1.



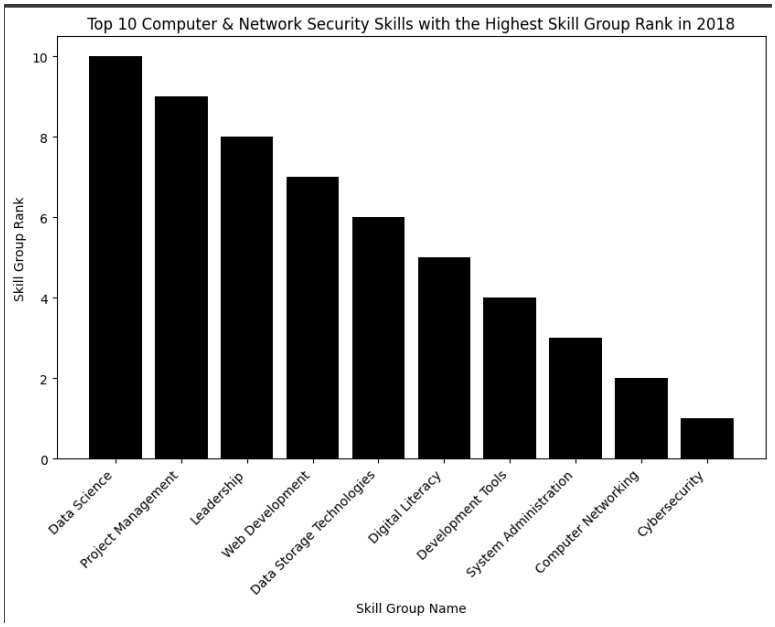
Analysis of Top Computer & Network Security Skills in 2017

In our exploration of Computer and network Security skills for the year 2017, we discern an intriguing dynamic within this pivotal domain. Remarkably, web development and project management skills seize the top positions, achieving the highest skill group ranks, marked as 10 and 9, respectively. These skill rankings underscore the pivotal roles that web development and project management play in the rapidly evolving landscape of Computer and network Security during this year. Intriguingly, cybersecurity maintains its unique position with a skill group rank of 1, reaffirming the specialised nature of this critical sector.



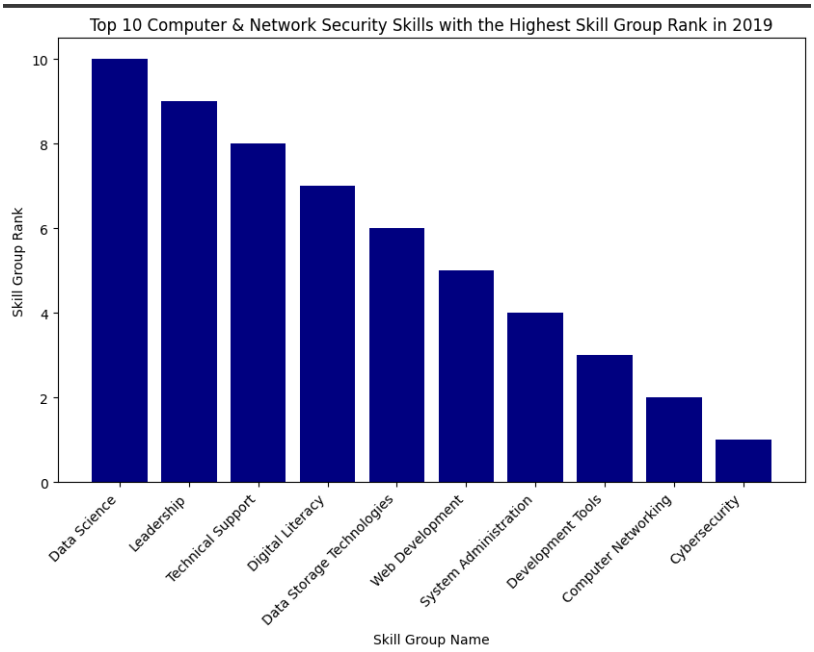
Analysis of Top Computer & Network Security Skills in 2018

Our analysis of Computer and network Security skills for 2018 reveals a consistent and intriguing pattern within this vital industry. Once again, data science and project management skills take centre stage, achieving the highest skill group ranks of 10 and 9, respectively. These rankings reaffirm the enduring importance of data science and project management in shaping the landscape of Computer and network Security. Equally noteworthy is the continued dominance of cybersecurity, maintaining its skill group rank of 1.



Analysis of Top Computer & Network Security Skills in 2019

Our examination of Computer and Network Security skills for 2019 unveils a consistent trend within this critical sector. Notably, data science and leadership skills maintain prominence, securing the highest skill group ranks of 10 and 9, respectively. These rankings underscore the enduring importance of data science and leadership in shaping the landscape of Computer and Network Security during this year. Intriguingly, cybersecurity continues to hold a distinctive position with a skill group rank of 1, reaffirming cybersecurity's specialised and pivotal role in safeguarding digital assets and infrastructure.

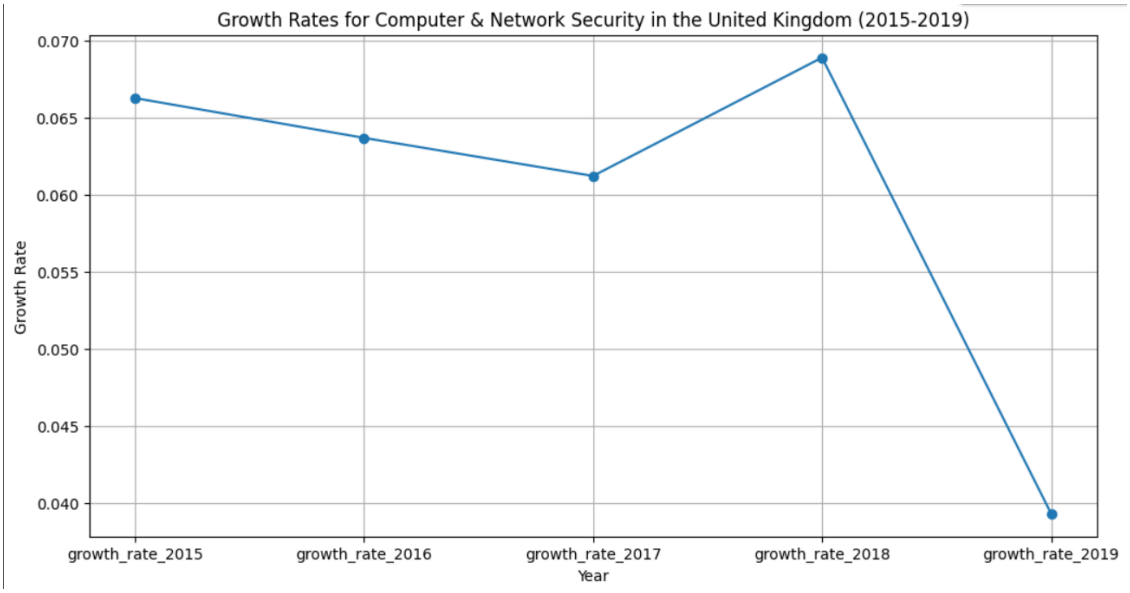


Across the five years from 2015 to 2019, our analysis of Computer and Network Security (CNS) skills reveals several significant trends. Foremost, the cybersecurity skill consistently maintains its top rank of 1, underlining its unwavering importance as a foundational element of CNS. Additionally, the skill landscape within CNS displays diversity, with skills such as data science, project management, web development, leadership, and business management taking the lead at different points in time. Notably, data science emerges as a dominant force, ranking at the highest level (10) in multiple years, indicating a growing reliance on data-driven approaches for bolstering security measures. Furthermore, the prominence of leadership and management skills with rankings of 9 underscores the vital role of effective leadership in guiding security initiatives and teams.

Analysis of Growth Rates for Computer & Network Security in the United Kingdom (2015-2019)

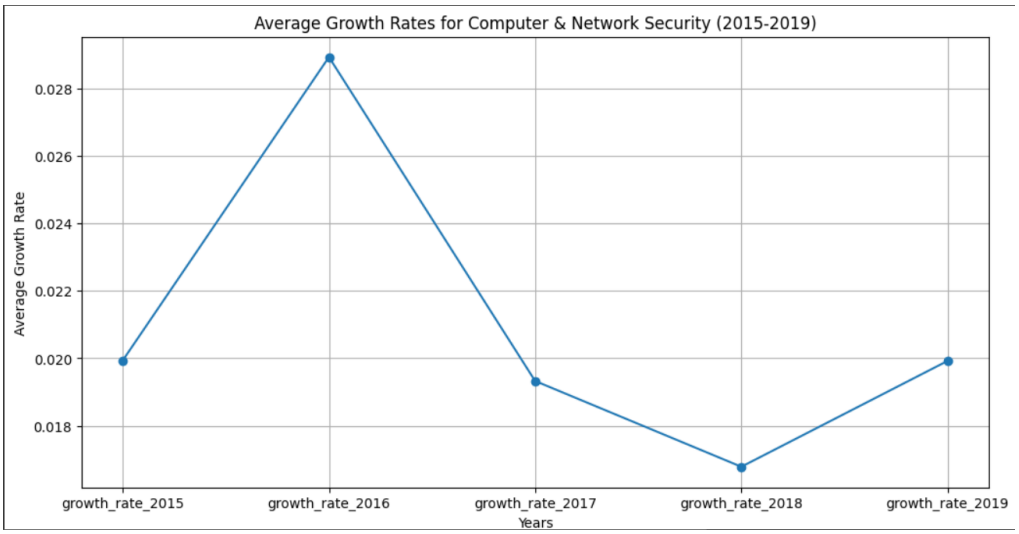
Our examination of the growth rates for the Computer and network security industry in the United Kingdom from 2015 to 2019 reveals intriguing dynamics within this critical sector. 2015, the industry exhibited a robust growth rate, surpassing the 0.065 mark. However, this momentum faltered in the subsequent years, with growth rates dropping below this threshold in 2016 and 2017, hovering just above 0.060. The turning point arrived in 2018, as growth rates witnessed a substantial uptick, reaching levels nearing 0.070. Nevertheless, 2019 brought about a stark reversal, with growth rates plummeting

dramatically, descending to less than 0.040. This nuanced pattern underscores the industry's resilience and volatility, influenced by various factors over the five years.



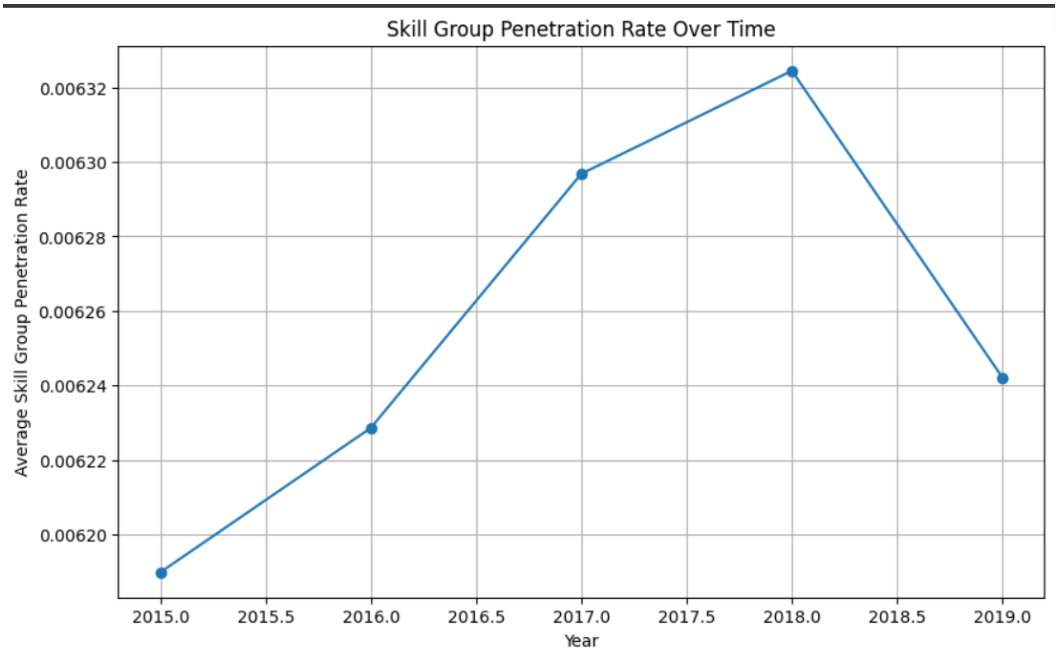
Analysis of Average Growth Rates for Computer & Network Security (2015-2019)

Our examination of the average growth rates within the Computer and Network Security (CNS) industry from 2015 to 2019 reveals a dynamic trajectory with nuanced shifts. In 2015, the sector displayed a modest average growth rate of approximately 0.020. Subsequently, the landscape experienced a notable surge in 2016, with the average growth rate climbing dramatically to over 0.028. However, this momentum was short-lived as the average growth rate regressed in 2017, falling below the 0.020 mark. The downward trend persisted into 2018, reaching an average growth rate of 0.018. Interestingly, 2019 witnessed a reversal of this declining pattern, as the average growth rate rebounded to approximately 0.020.



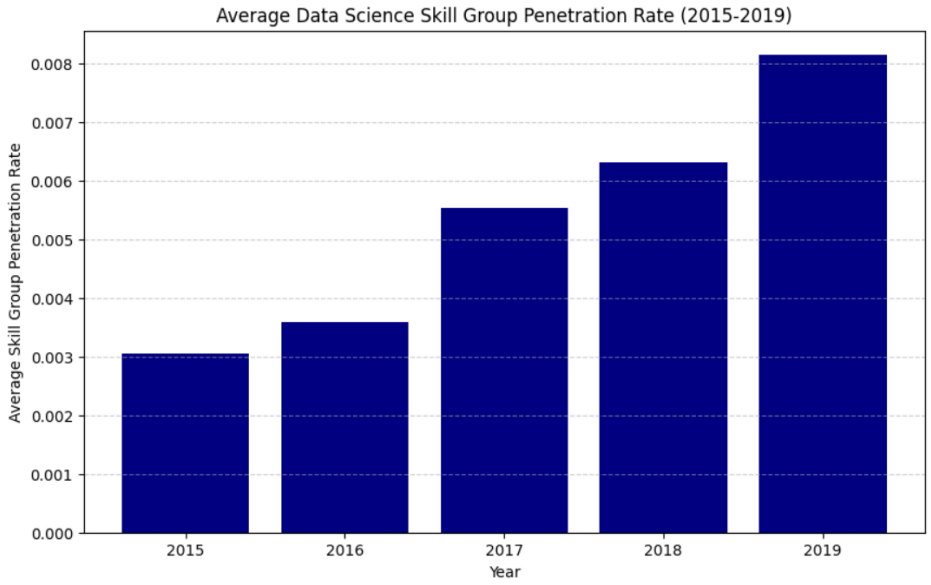
Analysis of Skill Group Penetration Rate Over Time (2015-2019)

The line graph depicts the evolution of the average skill group penetration rate from 2015 to 2019. In 2015, the average penetration rate started at slightly below 0.00620. Over the following years, there was a steady increase, reaching its peak in 2018 at over 0.00632. However, in 2019, there was a slight decline, with the rate settling at approximately 0.00624. This trend suggests a general upward trajectory in the adoption or prevalence of skill groups over the observed period, with a minor dip in the final year.



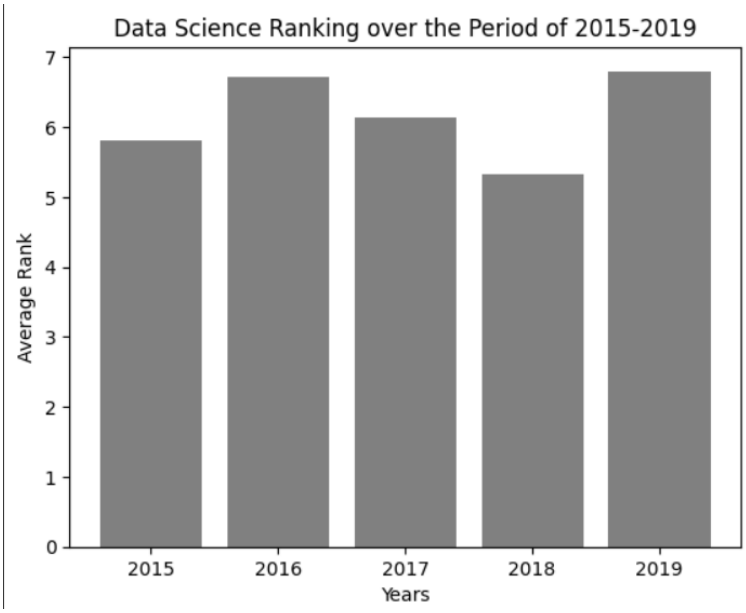
Trend Analysis of Data Science Skill Group Penetration Rate (2015-2019)

Our analysis of the Data Science skill group's penetration rate spanning from 2015 to 2019 reveals a notable trend. Beginning at a modest 0.003 in 2015, this skill group displayed consistent growth year after year, culminating in an impressive penetration rate exceeding 0.008 in 2019. This upward trajectory underscores the increasing importance of Data Science skills within the analyzed industries, reflecting their pivotal role in driving innovation and decision-making.



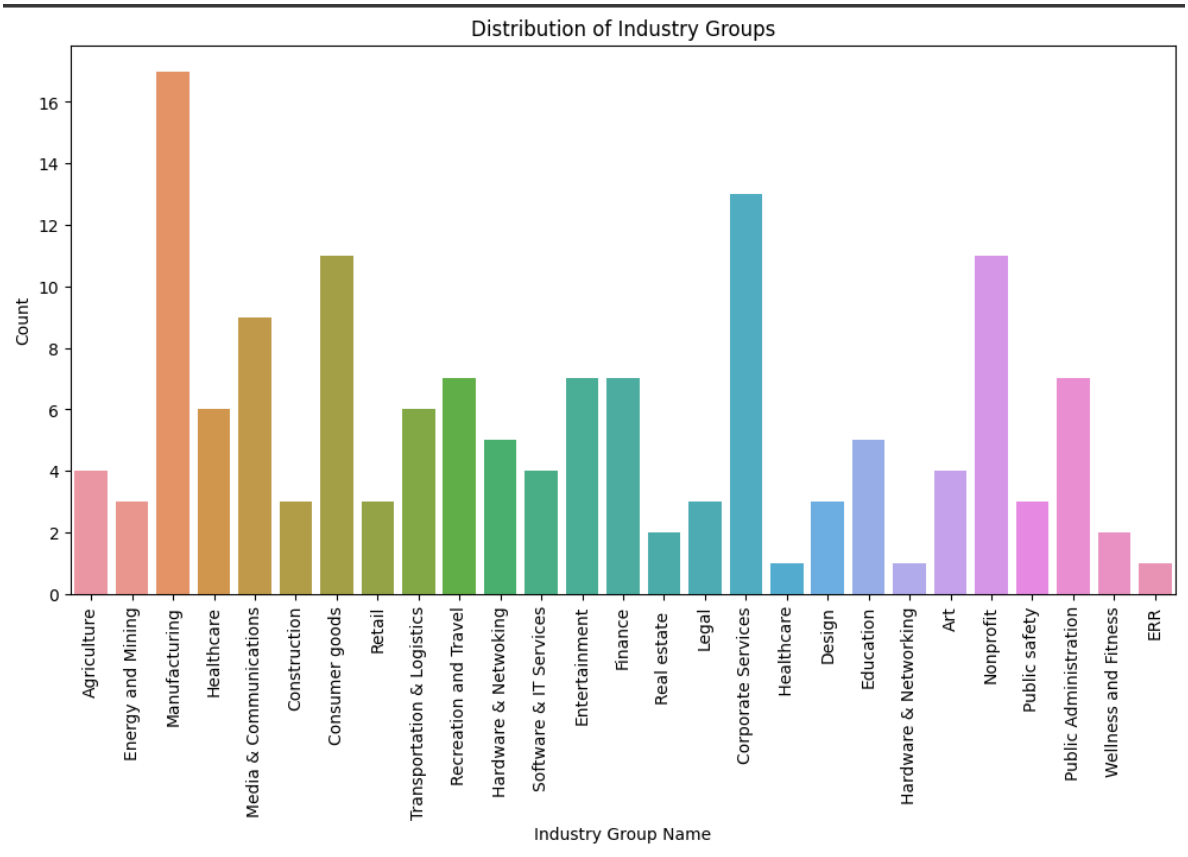
Trend Analysis of Data Science Skill Ranking (2015-2019)

The graph presents a trend analysis of the skill ranking for "Data Science" from 2015 to 2019. In 2015, the skill had an initial ranking of approximately 6, which subsequently increased to nearly 7 in 2016. However, there was a slight drop in ranking in 2017, followed by a more significant decrease in 2018, bringing the ranking close to 5. Interestingly, in 2019, the ranking experienced a substantial increase, almost returning to the 2016 level, reaching nearly 7. This trend suggests fluctuations in the perceived importance or demand for Data Science skills over this five-year period.



Distribution of Industry Groups

The analysis of industry groups in the provided dataset reveals notable patterns in their distribution. Manufacturing emerges as the dominant category with the highest count, signifying its prevalence within the dataset. Conversely, industries such as healthcare, hardware and networking, and ER appear to have lower representation, indicating their relatively lesser presence. This insight suggests a concentration of data in manufacturing-related sectors, which could be valuable for further investigations or targeted analyses within that specific industry.



Analysis of Economic Growth Rates by World Bank Income Group in 2019

Our analysis of economic growth rates in 2019 across World Bank income groups reveals a striking contrast. High-income countries lead with a robust average growth rate of 0.006, indicating strong economic performance. In contrast, lower-middle-income, low-income, and upper-middle-income countries exhibit negative growth rates, signifying economic challenges. This disparity highlights the need for tailored economic strategies and policy adjustments to foster growth in various income groups.