

Skill Gap Analysis

Bridging the Gap Between Education and Industry

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Introduction

- Identify the gap between student skills and employer expectations.
- Help colleges align training programs with industry needs.
- Focus on technical and soft skill development.

Objectives

- Analyze students' technical and soft skills.
- Identify the most lacking skills.
- Suggest strategies to bridge the gap.
- Visualize insights using Power BI.

Python Data Cleaning Summary

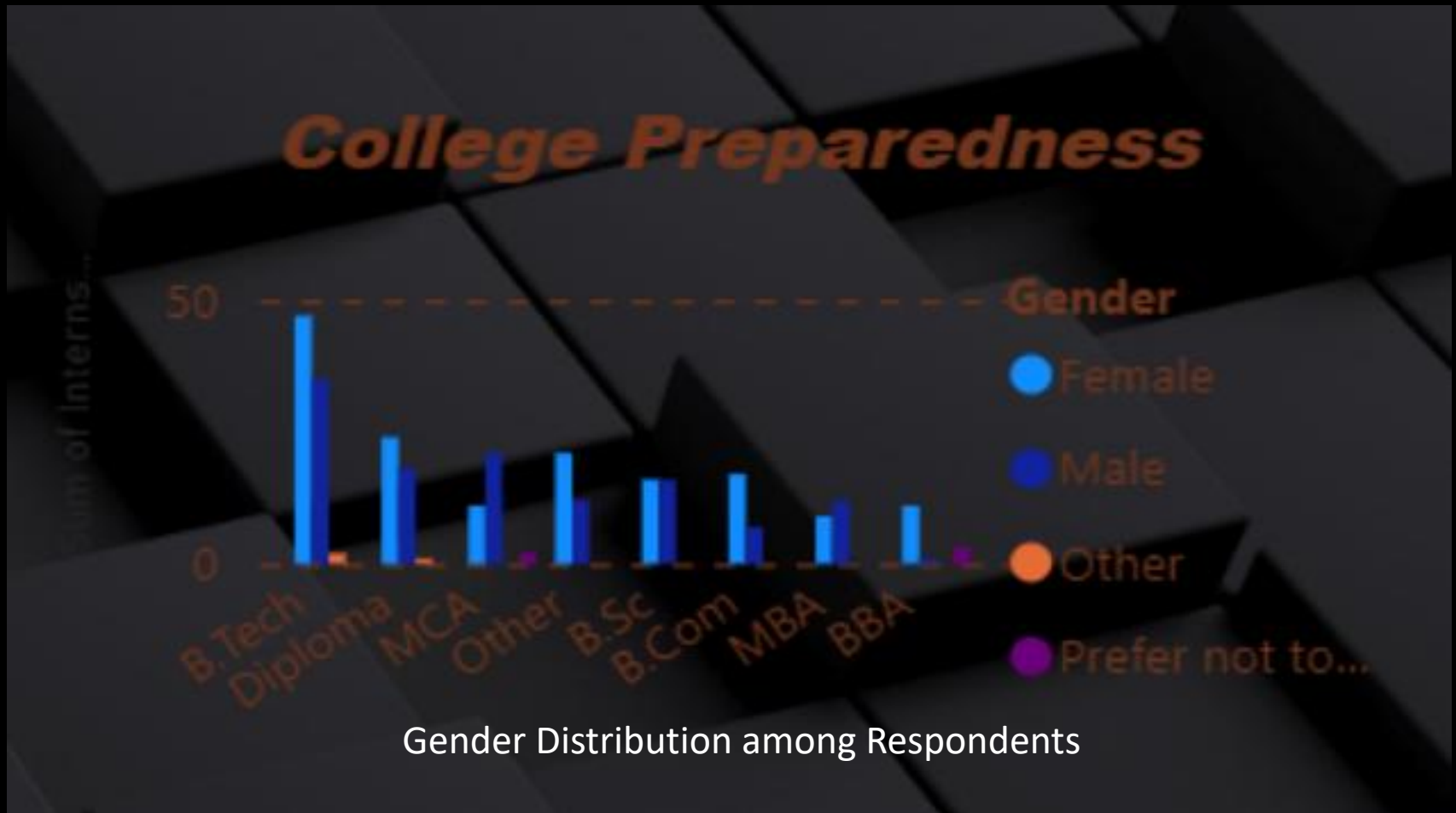
- Used Pandas for data inspection, missing value handling, and cleaning.
- Removed duplicates, standardized text (Yes/No fields).
- Filled missing values with mode/median.
- Exported cleaned data to Excel.
- Final dataset shape: 300 rows × 27 columns.

Dataset Overview

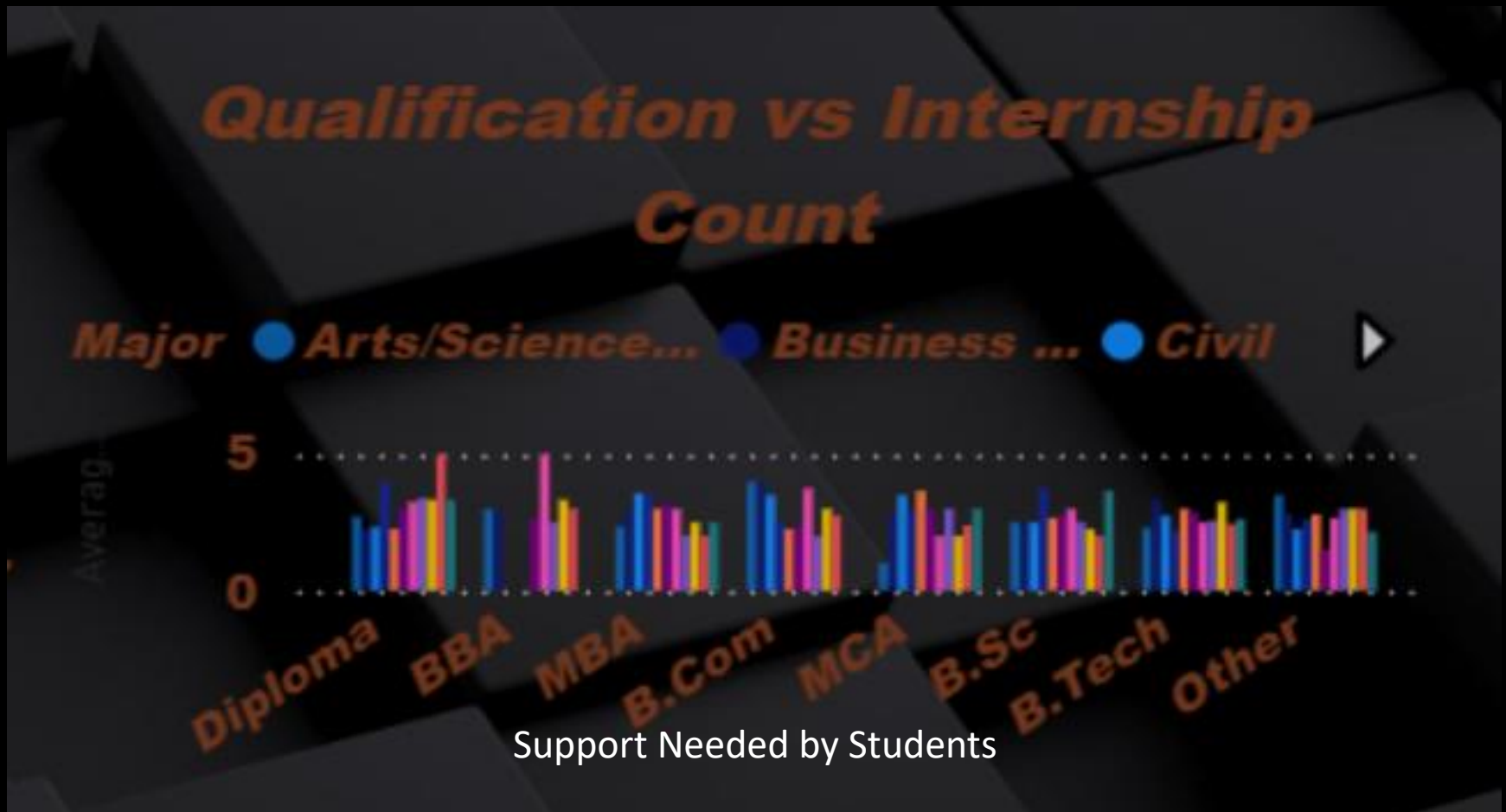
Columns include: Gender, State, Qualification, Major, Internship Count, Technical Score, Problem Solving, Communication, etc.

Verified data integrity using `df.info()`, `df.shape`, and `df.isnull().sum()`.

Dashboard Visual



Dashboard Visual



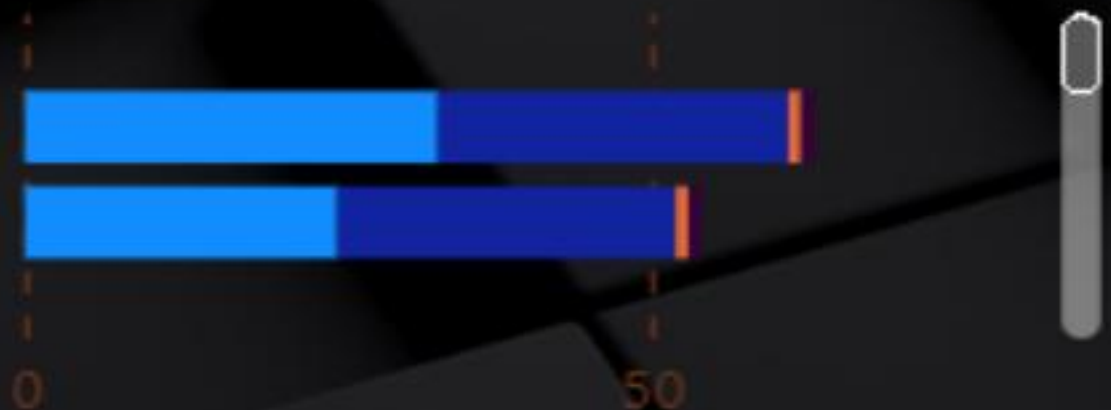
Dashboard Visual

Main Reason for Not Getting Job

Gender ● Female ● Male ● Other ● Prefer not to say

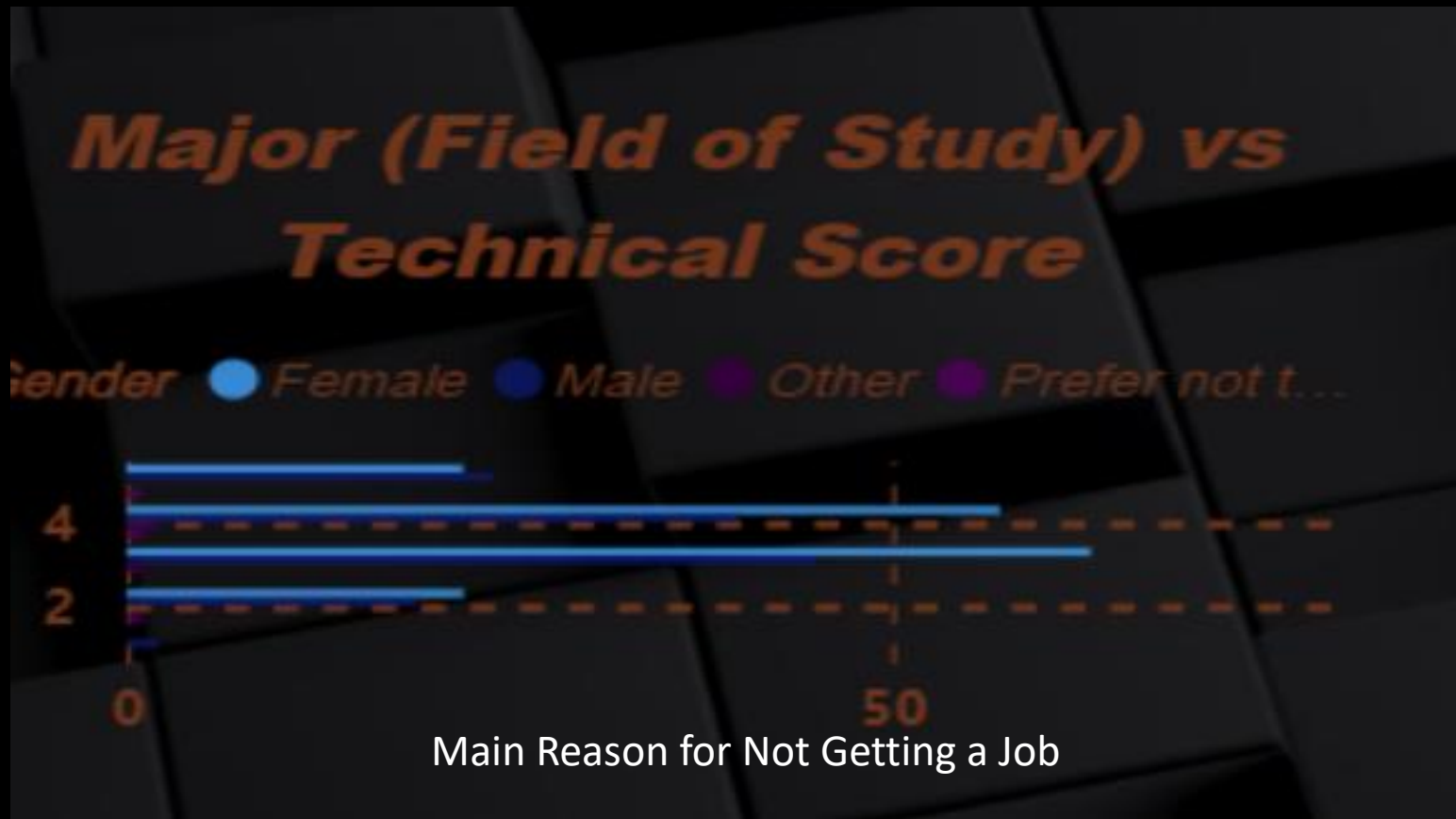
Lack of tech...

Lack of soft ...



Major vs Technical Score

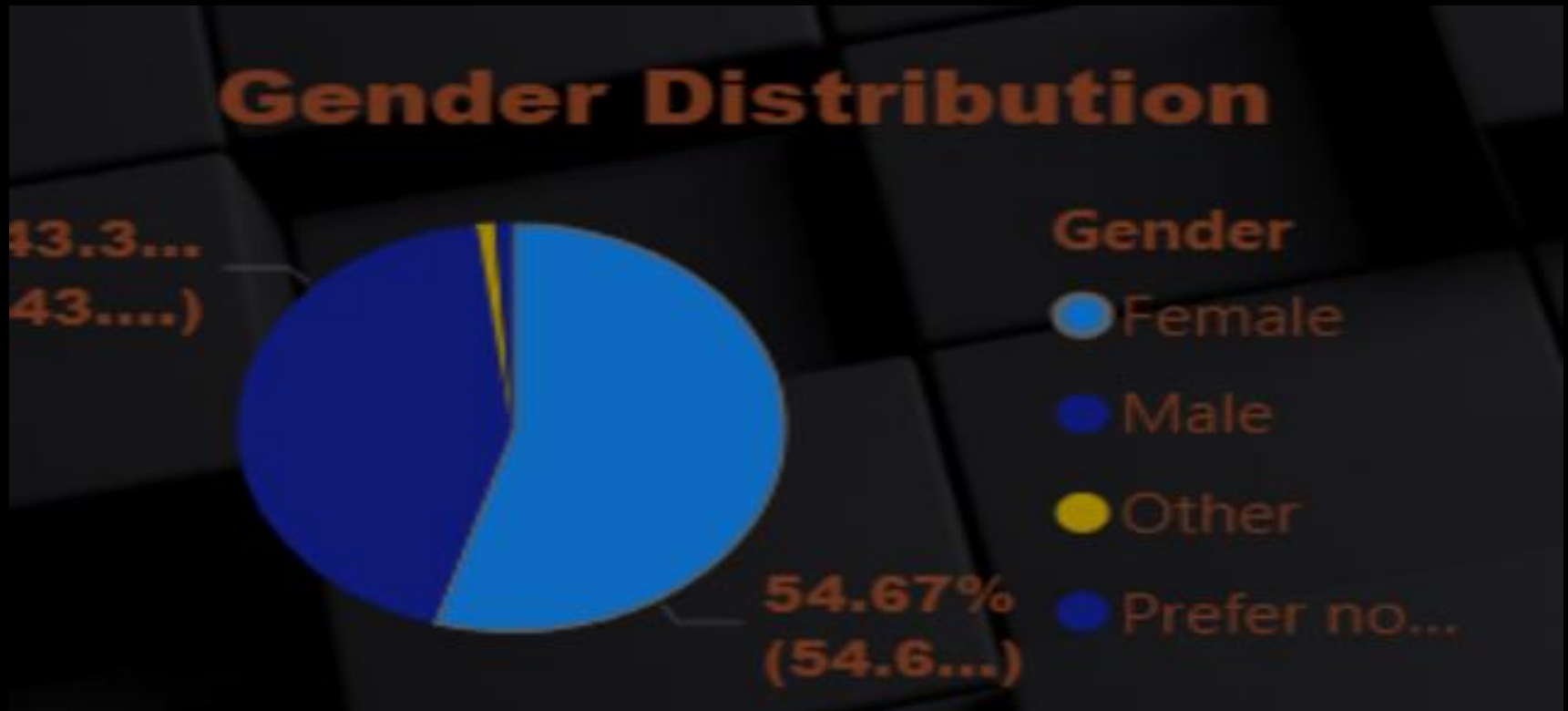
Dashboard Visual



Dashboard Visual



Dashboard Visual



College Preparedness by Qualification

Key Insights

- Python, Excel, and SQL are top technical skills.
- Communication and teamwork need improvement.
- 60% of students lack internship experience.
- Most students request career guidance & workshops.

Interpretation

- Education focuses more on theory than practice.
- Employers expect real-world exposure & soft skills.
- Colleges need to enhance industry integration.

Recommendations

- Add internship-based learning modules.
- Conduct technical bootcamps & soft skill sessions.
- Introduce mentorship programs.
- Collaborate with industry professionals.

Future Scope

- Conduct real survey with more respondents.
- Compare gender-wise & course-wise gaps.
- Automate dashboards for real-time updates
- Add AI insights for better skill predictions.

Conclusion

- The skill gap can be reduced through internships, projects, and hands-on training.
- Balanced technical & soft skill focus improves employability.
- This study supports actionable improvements for education systems.

Thank You

Questions?

Skill Gap Project – Modern Dark Theme (Black & Orange)