

Live Workshop

Building Reusable AI Workflows with Claude Skills

Automate exploratory analysis and feature engineering to take your data from silver to gold



About Me

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Data Science Editor at DataCamp



Written & edited 100+ articles and tutorials for the DataCamp blog



Currently predicting the FIFA World Cup 2026



Worked at Deutsche Telekom

What Are Claude Skills?

A skill is a markdown file with instructions that Claude loads and follows when triggered by a matching request.



How does Claude know when to activate a skill?

Each skill has a description field. Claude reads it and matches it against your prompt. The description is the trigger.



Modular



Triggered
Automatically



Composable

How Skills Compare

	System Prompts	Rules Files	Claude Skills
Where they live	Per conversation / API call	Per project / repo	Your account, across all chats
Best for	Setting a persona	Enforcing consistency across a codebase	Automating repeatable workflows
Token cost	Always fully loaded	Always fully loaded	Only loaded when needed

Best Practices for Claude Skills

1

Write clear descriptions with trigger terms

The description is how Claude decides whether to activate a skill. Include the phrases your team actually uses.

2

Keep skills focused on one task

Resist the urge to build a super-skill. Smaller skills are easier to test, iterate on, and compose together.

3

Put domain knowledge in the prompt, not the skill

Skills should be general-purpose. The specifics are added at runtime. Swap the dataset and the workflow still works.

As Your Skill Library Grows

1

Avoid overlapping triggers

If two skills match the same prompt, Claude may pick the wrong one (or both). Make descriptions specific and distinct.

2

Test changes before you commit

When you update a skill, run it against past prompts to catch regressions. Keep old versions until the new one proves itself.

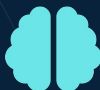
3

Name and organize deliberately

Use clear file names and group related skills. Future you will thank present you.

What We're Building Today

01



Exploratory Data Analysis Skill

Build a reusable EDA workflow

02



Feature Engineering Skill

Create an automated feature engineering pipeline

We build each skill and then test them in a single chat.

Why This Problem?



Today: automating Silver → Gold



Today's Example

Features for FIFA WC 2026 goal predictions from national team matches since 2018 (subset).



The Real Takeaway

The skills we build today apply to any prediction or analytics task. Swap the dataset; the workflow still works.