

## **GIT CHEAT SHEET (Data Scientist Friendly)**

### **Core Daily Commands**

```
git status – check current state  
git pull – get latest changes  
git add . – stage all changes  
git commit -m "message" – save snapshot  
git push – send commits to remote
```

### **Branches**

```
git branch – list branches  
git checkout -b my-branch – create & switch branch  
git switch main – go back to main  
git branch -d my-branch – delete branch
```

### **History**

```
git log --oneline – show history (quit with q)  
git log --oneline --graph --all – visualize branches  
git log filename.py – history of one file
```

### **Go Back in Time**

```
git checkout <commit-id> – view old version  
git checkout -b new-branch <commit-id> – continue from old version
```

### **Undo Mistakes**

```
git reset --soft HEAD~1 – undo last commit, keep changes  
git reset --hard HEAD~1 – undo and delete changes (danger)  
git revert <commit-id> – safely undo pushed commit
```

## **Staging**

```
git add file.py – stage file  
git add -p – stage interactively  
git restore --staged file.py – unstage file
```

## **Stash**

```
git stash – save work temporarily  
git stash list – see stashes  
git stash pop – restore stash
```

## **Merging**

```
git merge other-branch – merge into current branch
```

## **Emergency**

```
q – quit git log pager  
git reflog – recover lost commits
```