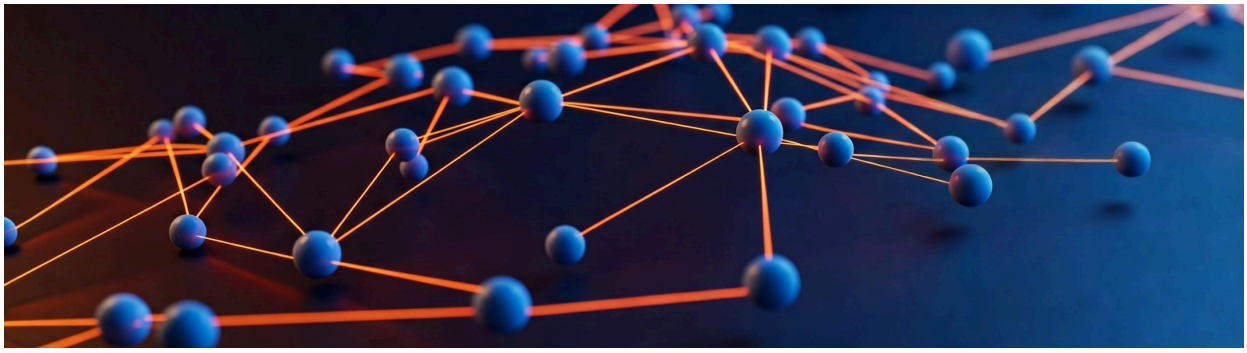

What is Git?

- Git is a **distributed version control system** used for **tracking changes**
- It is designed for **coordinating work among developers** in source code during **software development.**
- Git is essentially a content tracker. It **takes snapshots** of your files at **different points in time**, allowing you to **revert to any previous version** if needed.

Why Use Git (and Version Control)?

Version control systems, including Git, are crucial for several reasons:

- **Tracking Changes**
- **Reverting**
- **Branching and Merging**
- **Collaboration**

How Does Git Work?

- Git works by **creating a repository**, which is a **directory that contains all project files**.
- **Changes** are made to files and then committed to the **repository**, creating a **new version**.
- **Developers** can **pull changes** from a remote repository (like GitHub) to stay up-to-date, and **push their changes** back to share with others.

Why Git over other tools?

- Git's **decentralized** nature means that every developer has a **full copy** of the **repository and history**, making it faster and more resilient.

What are GitHub, Bitbucket, and GitLab?

- **GitHub, Bitbucket,** and **GitLab** are **web-based platforms built around Git**.
- **Git** is often **preferred** due to its s**peed, flexibility,** strong branching model, and wide community support.