

# GitHub Tutorial

*EC5.201: Signal Processing*

August 2, 2024

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## GitHub Installation and Setup

- Create a GitHub account with college email ID.
- For Linux systems, run the following code in the terminal:

```
sudo apt-get install git
```

- For MacOS systems, run the following code in the terminal:

```
brew install git
```

- For Windows systems, download from the link. Run the installer.
- Run the following commands in the terminal:

```
git config --global user.name <your username>
git config --global user.email <your email ID>
```

## Generating a Personal Access Token(PAT)

- Log into GitHub and open settings → developer settings → personal access tokens → generate new token(classic).
- Copy this generated token and save it locally as it disappears after generation.
- PAT is recommend as ssh is blocked on LAN.
- Use a VPN to unblock if using ssh.

## Cloning a repository

- You need to use the PAT generated above to clone a private repository.
- Copy the repository link from the GitHub page. Open terminal/command prompt and use the command:  

```
git clone https://<PAT>@github.com/<your account or organization>/<repo>.git
```

  
(P.S: <> is only for demonstration.)

## Pushing Code to the repository

- `git add .`
- `git commit -m "commit message"`
- `git pull`
- `git push`

**Make sure to always PULL before to PUSH to avoid merge conflicts**