

# GUI 환경에서의 버전관리

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# 기본 용어 정리

- Git
  - 깃. 버전관리 시스템
- GitHub
  - 깃허브. Git으로 관리하는 프로젝트를 올려둘 수 있는 사이트
- GUI
  - 그래픽 유저 인터페이스. 즉 마우스로 클릭해서 사용하는 방식
- CLI
  - 커맨드 라인 인터페이스. 즉 명령어를 하나씩 입력하는 방식
- Git Bash
  - CLI 방식으로 Git을 사용할 수 있는 환경
- 커밋
  - 버전 관리를 통해 생성된 파일, 혹은 그 행위를 의미함

# 기본 용어 정리

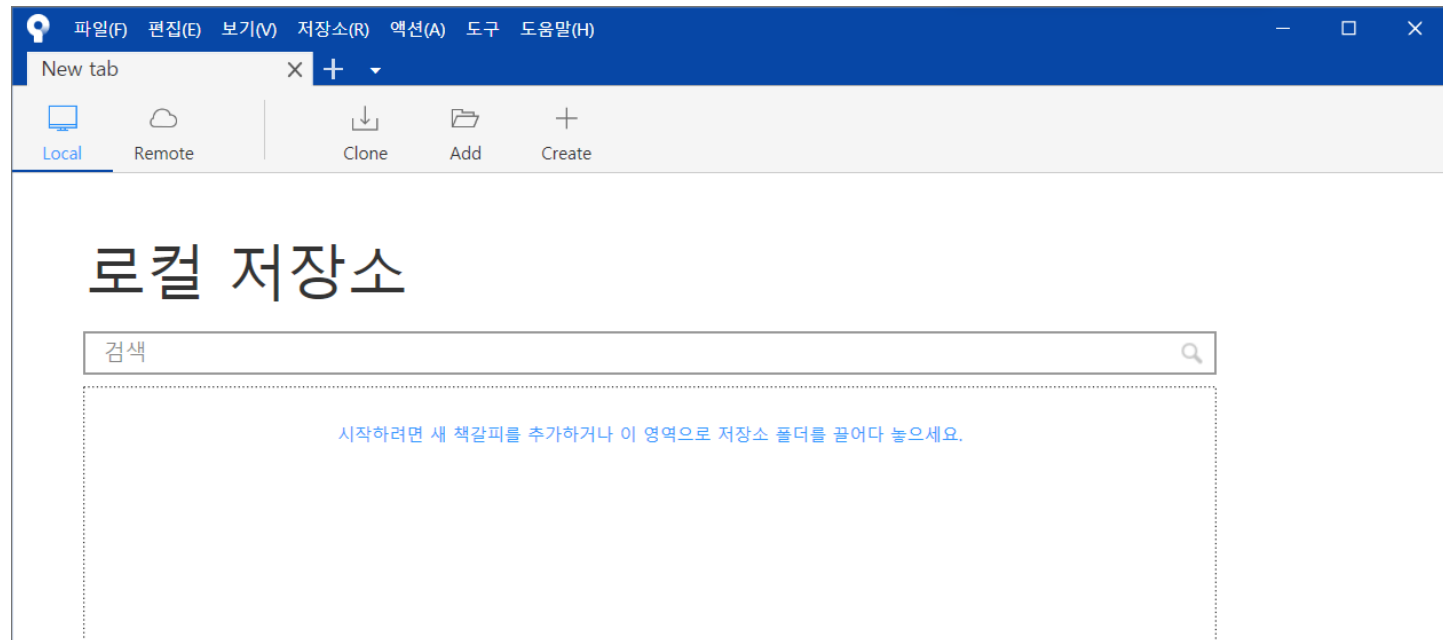
- Log 명령어
  - 지금까지 만든 커밋을 모두 확인함
- Checkout
  - Checkout은 원하는 지점으로 파일을 되돌리는 것
  - 타임머신과 같음
- 로컬저장소
  - Git으로 버전 관리하는 내 컴퓨터 안 폴더
- 원격저장소
  - GitHub에서 협업하는 공간(폴더)를 의미함
- 레포지토리
  - 원격저장소를 의미함

# 기본 용어 정리

- Push
  - 로컬저장소의 커밋(버전 관리한 파일)을 원격저장소에 올리는 것
- Pull
  - 원격저장소의 커밋을 로컬저장소에 내려받는 것


# 소스트리

- 소스트리란?
  - Git 사용을 도와주는 GUI 프로그램
  - 버튼을 클릭하는 방식으로 필요한 명령 실행할 수 있게 도와주어 편리함
  - 또한, git의 핵심인 커밋, push, branch 등을 눈으로 쉽게 확인할 수 있어 개념 이해에 도움이 됨



# 소스트리 설치

- <https://www.sourcetreeapp.com> 에 접속함
- [Download for Windows] 버튼을 클릭함
  - Windows가 아닌 다른 운영체제라면 Windows 대신 그 운영체제 이름이 써있음
  - [Atlassian 소프트웨어 라이선스 계약 및 개인정보 보호 정책]에 체크하고 [Download] 버튼을 클릭함. 그러면 설치파일이 다운로드 됨

 Sourcetree

Download free

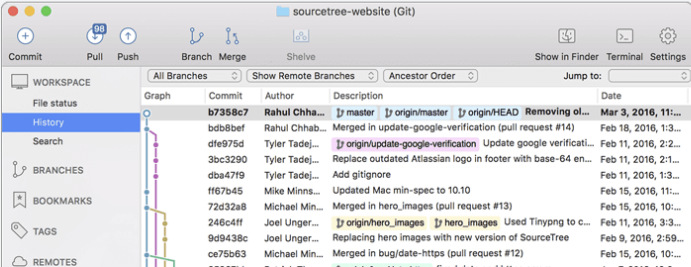
Important information ×

Simplicity and power in a beautiful Git GUI

Download for Windows

Also available for Mac OS X

Latest release notes: [Mac OS X & Windows](#)



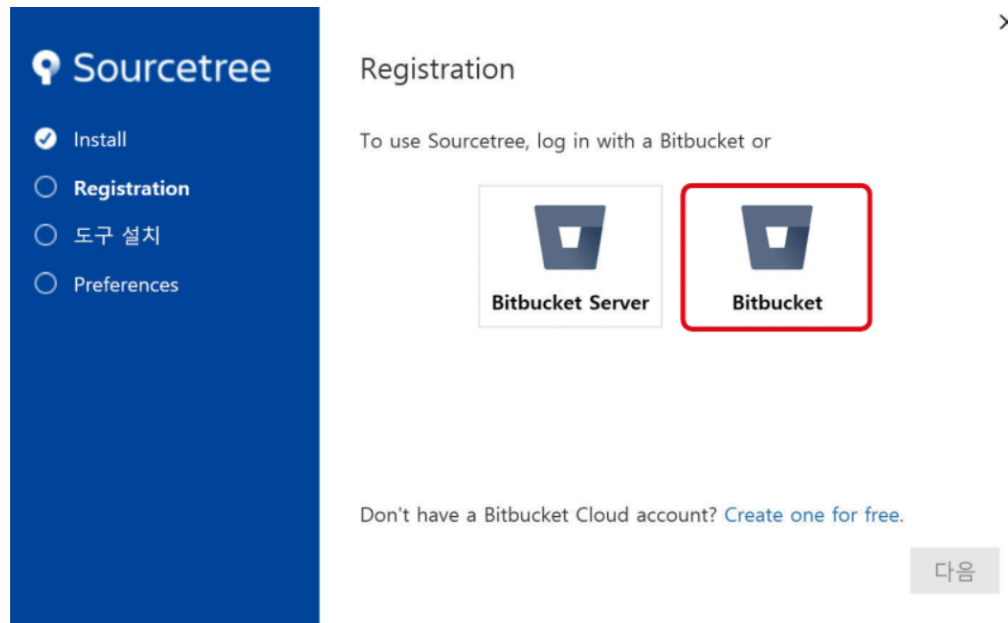
To continue downloading this product you must read and agree to the Atlassian Software License Agreement and Privacy Policy.

☒ I agree to the Atlassian Software License Agreement and Privacy Policy.

Download Cancel

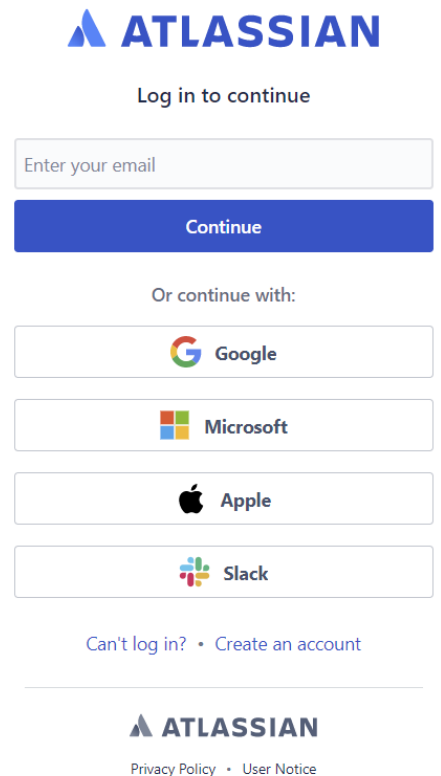
# 소스트리 설치

- Bitbucket server나 bitbucket 계정이 있어야 소스트리를 사용할 수 있음
- [Bitbucket]을 클릭함
- 실제로는 github를 쓸 것이지만 bitbucket 로그인만 해둠



# 소스트리 설치

- Bitbucket 가입 방법
  - <https://id.atlassian.com/login>
  - 위 홈페이지에 들어가서 하단 [Create an account]를 클릭함
  - 이메일 주소 입력하고 [Sign up] 버튼 클릭
  - 이메일로 인증함
  - 이름(아이디)과 비밀번호 입력
  - Bitbucket까지 가입해줌



The image shows the Atlassian login page. At the top is the Atlassian logo. Below it is the text "Log in to continue". There is a text input field labeled "Enter your email" and a blue "Continue" button. Below the button is the text "Or continue with:". There are four buttons for social login: "Google", "Microsoft", "Apple", and "Slack". At the bottom, there is a link "Can't log in? • Create an account". The footer contains the Atlassian logo and links for "Privacy Policy" and "User Notice".

ATLASSIAN

Log in to continue

Enter your email

Continue

Or continue with:

Google

Microsoft

Apple

Slack

Can't log in? • Create an account

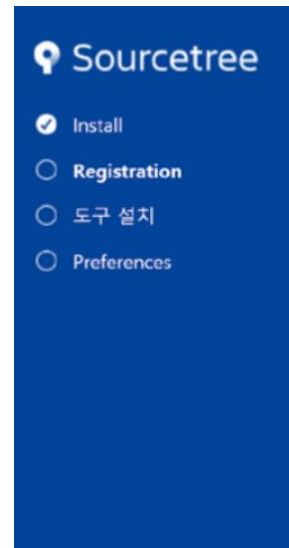
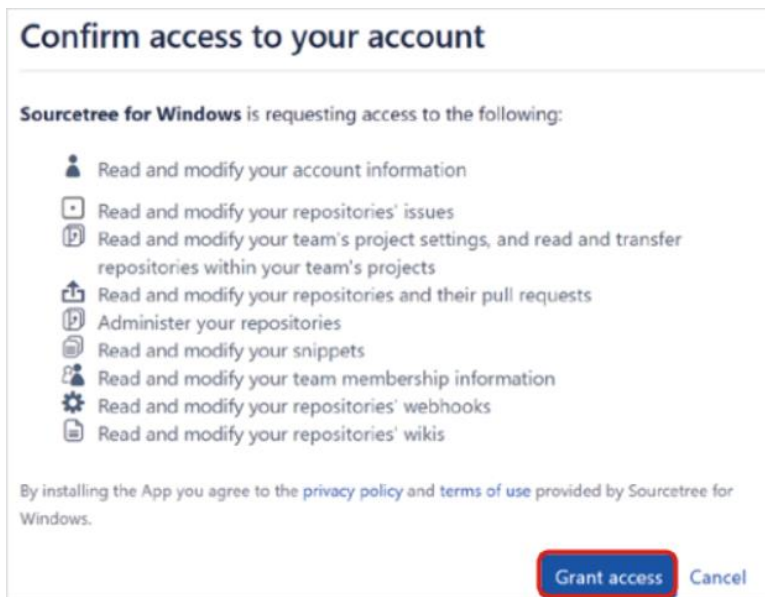
ATLASSIAN

Privacy Policy • User Notice



# 소스트리 설치

- 현재 bitbucket 계정에 소스트리에 접근할 수 있는 권한을 주는 창이 뜬. [Grant access] 클릭함
- 그러면 등록이 완료됨



등록 완료!

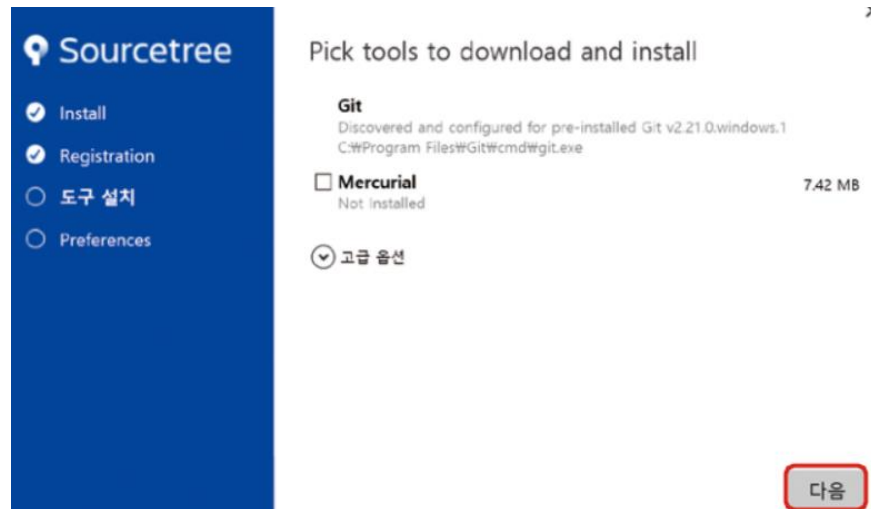


다음으로 로그인 할.hello.git.github@gmail.com

다음

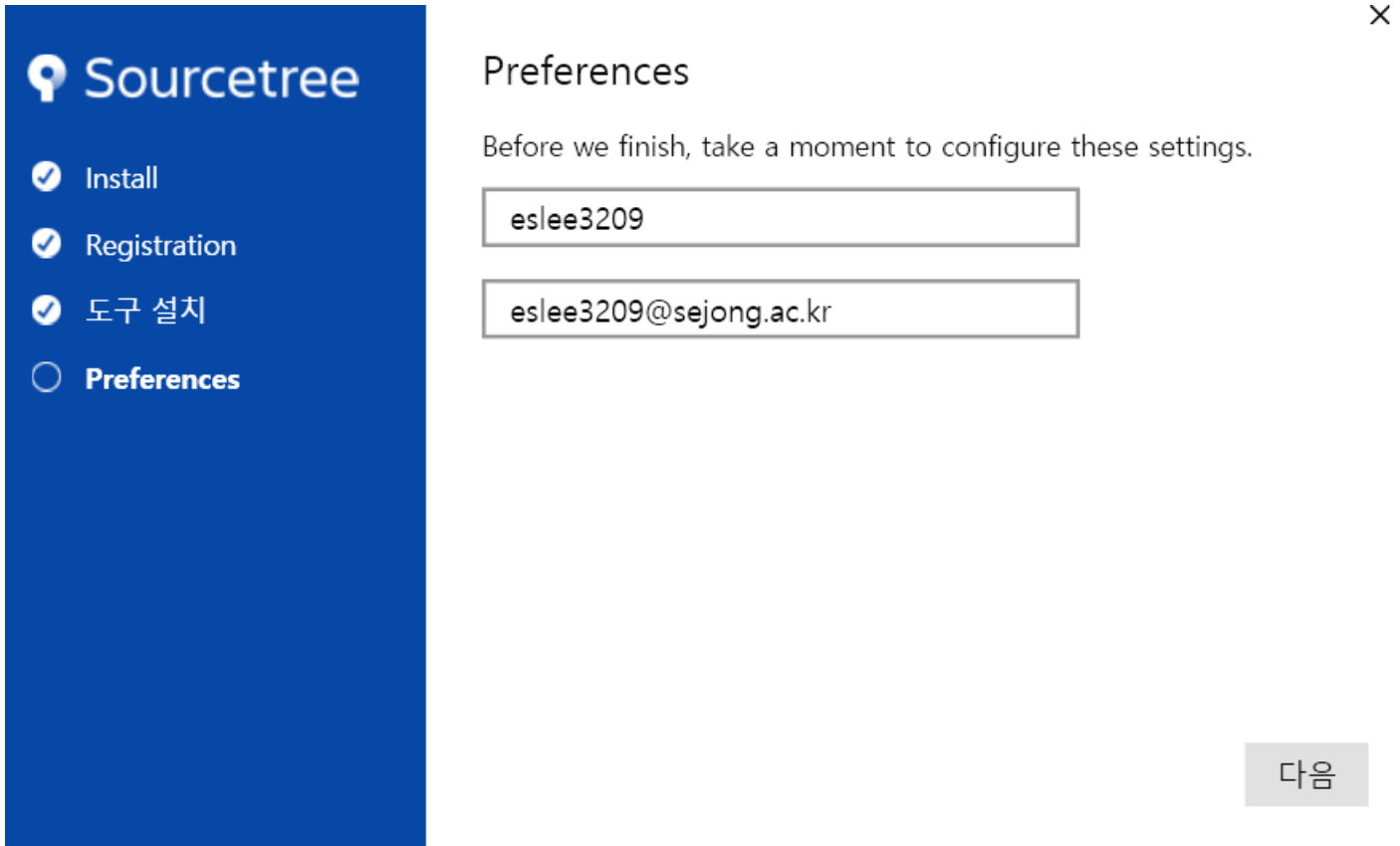
# 소스트리 설치

- 추가적인 도구 설치 화면이 나옴
- Git은 이미 설치되어있다고 인식함. Mercurial은 필요 없으니 체크 해제한 후 [다음] 클릭함



# 소스트리 설치

- 소스트리에서 Git을 사용할 때 기본 계정으로 사용할 Git 계정을 설정하는 화면이 나옴. Github에서 가입했던 계정 정보를 적어주고 [다음]을 누름.



×

**Sourcetree**

- ✓ Install
- ✓ Registration
- ✓ 도구 설치
- **Preferences**

### Preferences

Before we finish, take a moment to configure these settings.

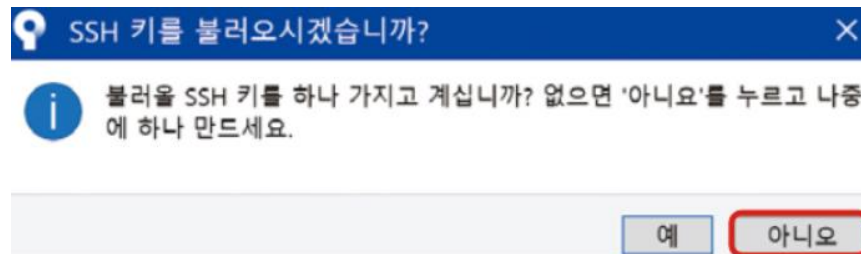
eslee3209

eslee3209@sejong.ac.kr

다음

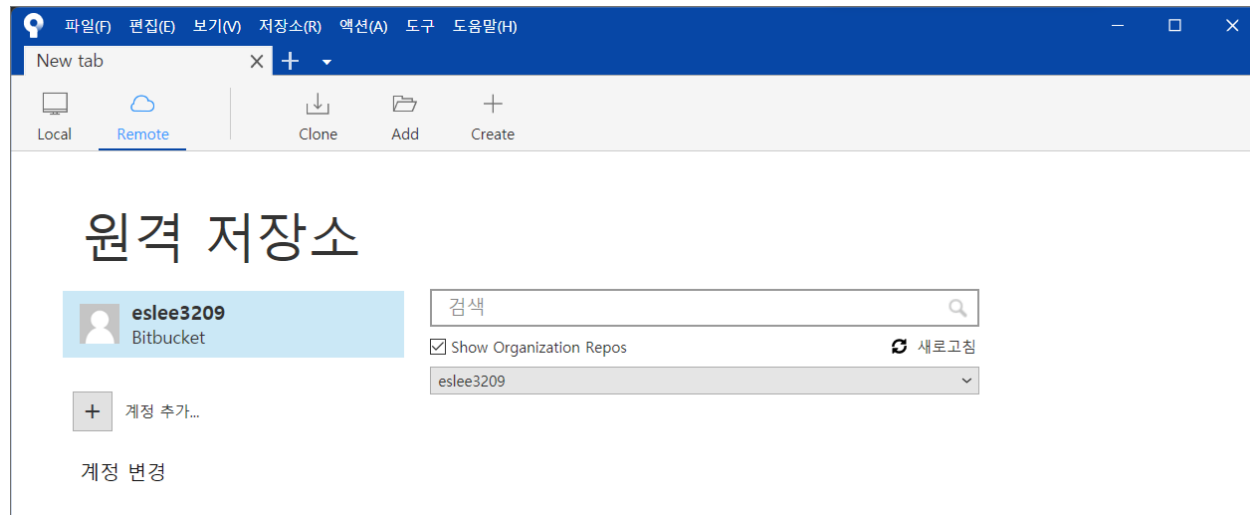
# 소스트리 설치

- SSH 키를 불러올지 알림 창이 뜸
- 당장은 필요 없으므로 [아니오]를 클릭함
- 그러면 소스트리 설치가 완료됨



# 소스트리에서 Github 로그인

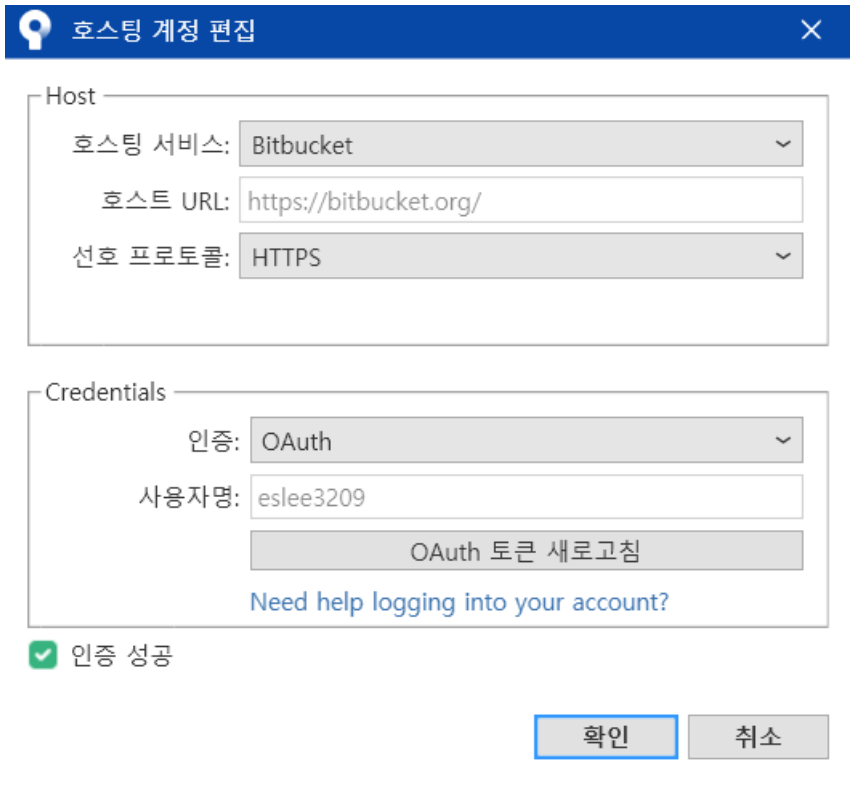
- 소스트리가 설치되면 소스트리 메인화면이 뜬다



- [Remote] 탭을 클릭함. Bitbucket이 호스팅 사이트로 설정되어있는데 이를 github로 바꿀 것임
- 좌측 계정(eslee3209)을 마우스 오른쪽 클릭하여 [계정 편집]을 선택함

# 소스트리에서 Github 로그인

- 팝업창이 뜨면 호스팅 서비스를 [Github]로 바꿔 주고, 하단에 [OAuth 토큰 새로고침] 버튼을 클릭함
- Github 로그인 창이 뜨면 github 계정으로 로그인함
- 다시 소스트리 설정으로 들어와 [확인] 클릭함



호스팅 계정 편집

Host

호스팅 서비스: Bitbucket

호스트 URL: https://bitbucket.org/

선택 프로토콜: HTTPS

Credentials

인증: OAuth

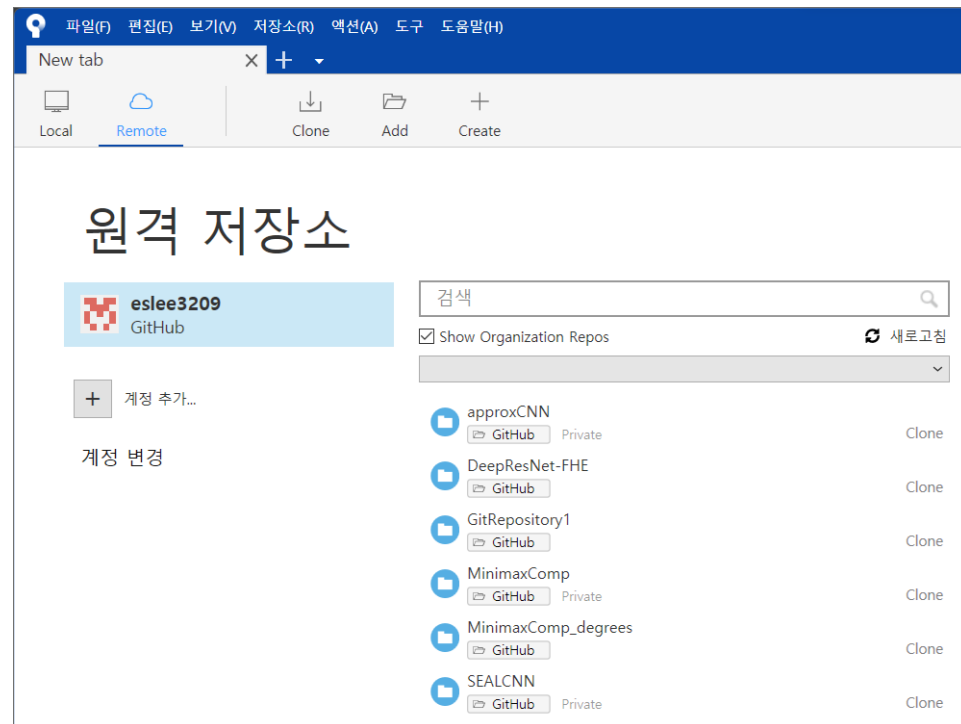
사용자명: eslee3209

OAuth 토큰 새로고침

Need help logging into your account?

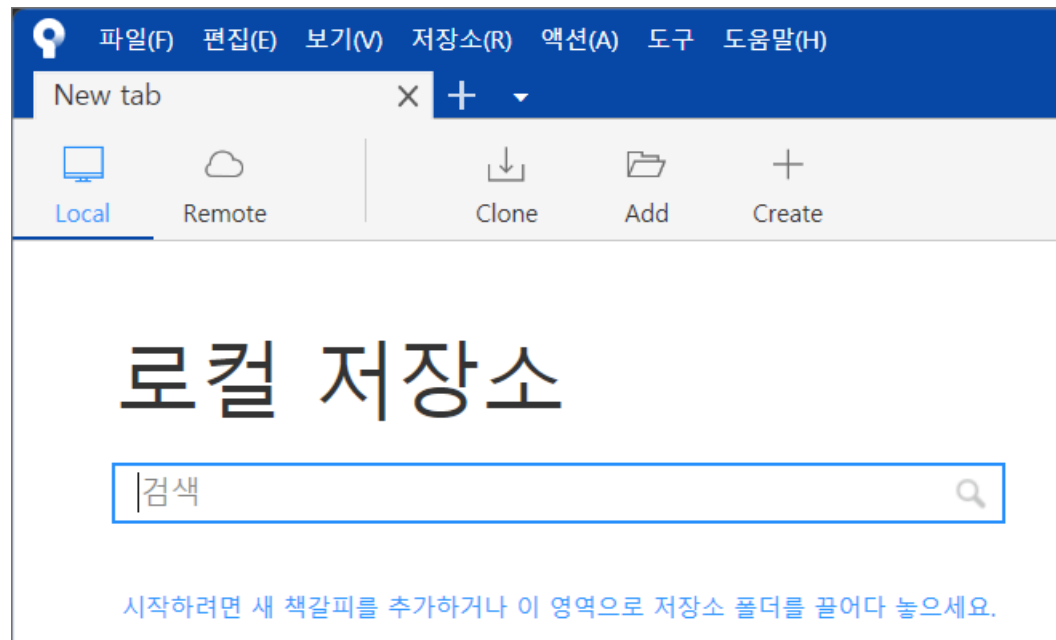
✓ 인증 성공

확인 취소



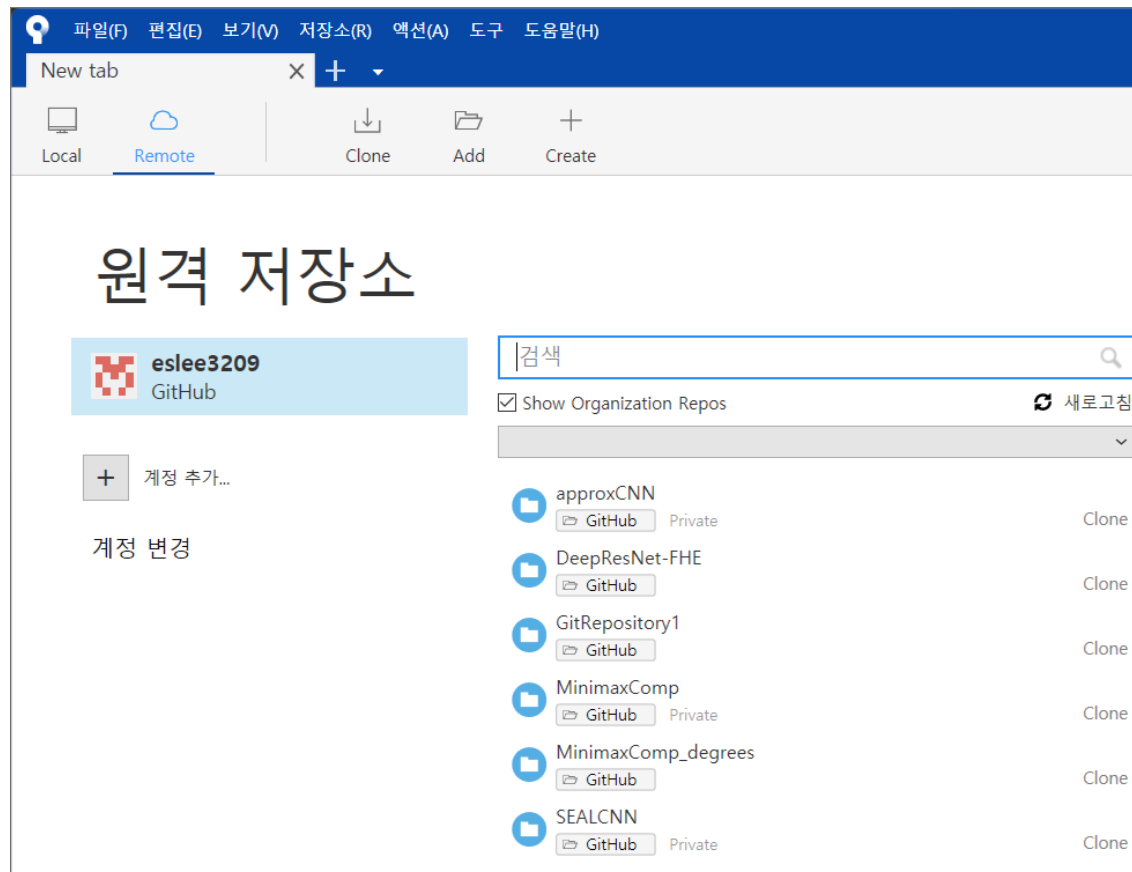
# 소스트리 둘러보기

- Local 탭
  - 컴퓨터에 저장되어있는 git 로컬저장소 목록을 보여줌
  - Git으로 관리되는 모든 저장소가 자동으로 표시되는 것은 아님
  - [Add] 탭에서 로컬저장소를 소스트리에 추가할 수 있음



# 소스트리 둘러보기

- Remote 탭
  - 원격저장소 계정(github)에 연결되어있는 모든 원격저장소를 볼 수 있음

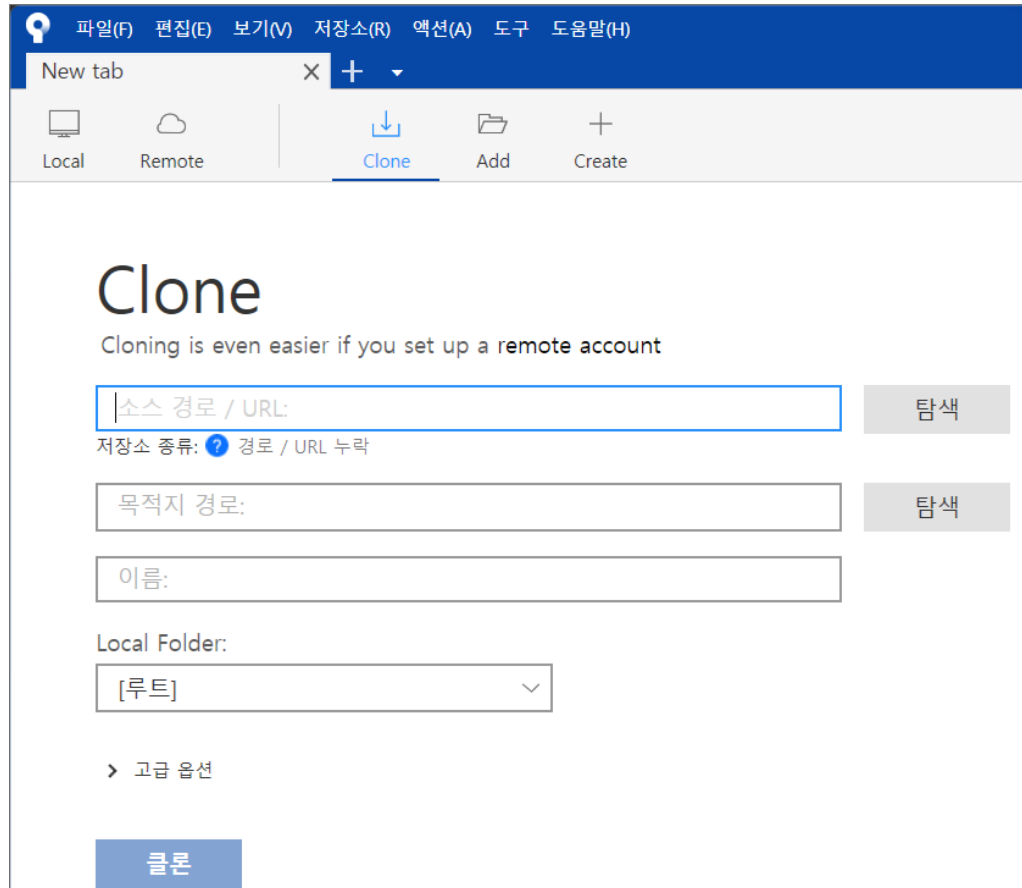




# 소스트리 둘러보기

- Clone 탭

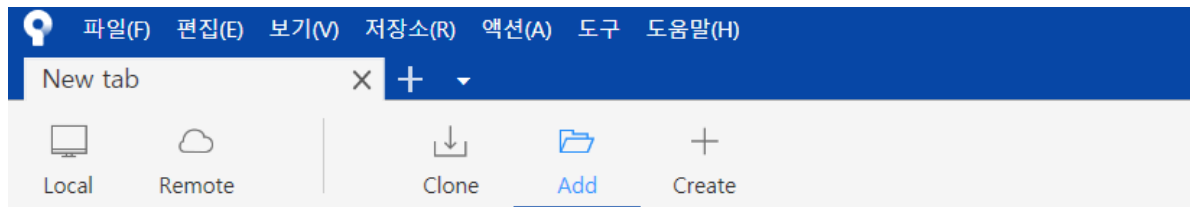
- 원격 서버에 올라와있는 git 저장소를 내 로컬 컴퓨터에 다운로드하고 소스트리에 연동할 수 있음



The screenshot shows a web interface for cloning a repository. At the top, there is a blue header bar with a search icon and menu items: 파일(F), 편집(E), 보기(V), 저장소(R), 액션(A), 도구, and 도움말(H). Below the header is a tab bar with 'New tab', a close button (X), and a plus button (+). The main content area has a sidebar with 'Local', 'Remote', 'Clone' (selected), 'Add', and 'Create' buttons. The 'Clone' section is titled 'Clone' and includes the text 'Cloning is even easier if you set up a remote account'. There are three input fields: '소스 경로 / URL:' with a search button, '저장소 종류: ? 경로 / URL 누락', '목적지 경로:', and '이름:'. Below these is a 'Local Folder:' section with a dropdown menu showing '[루트]'. At the bottom, there is a link '> 고급 옵션' and a blue '클론' button.

# 소스트리 둘러보기

- Add 탭
  - 내 컴퓨터에 이미 만들어져있는 로컬저장소를 소스트리에서 관리할 수 있음



## Add a repository

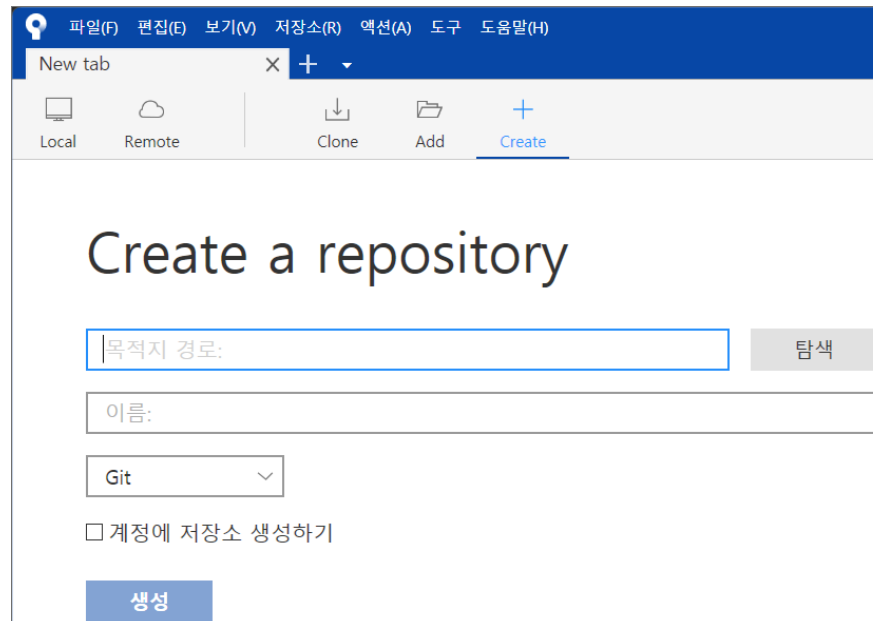
Choose a working copy repository folder to add to Sourcetree

저장소 종류: 작업용 복사본의 경로를 제공해 주십시오.

Local Folder:

# 소스트리 둘러보기

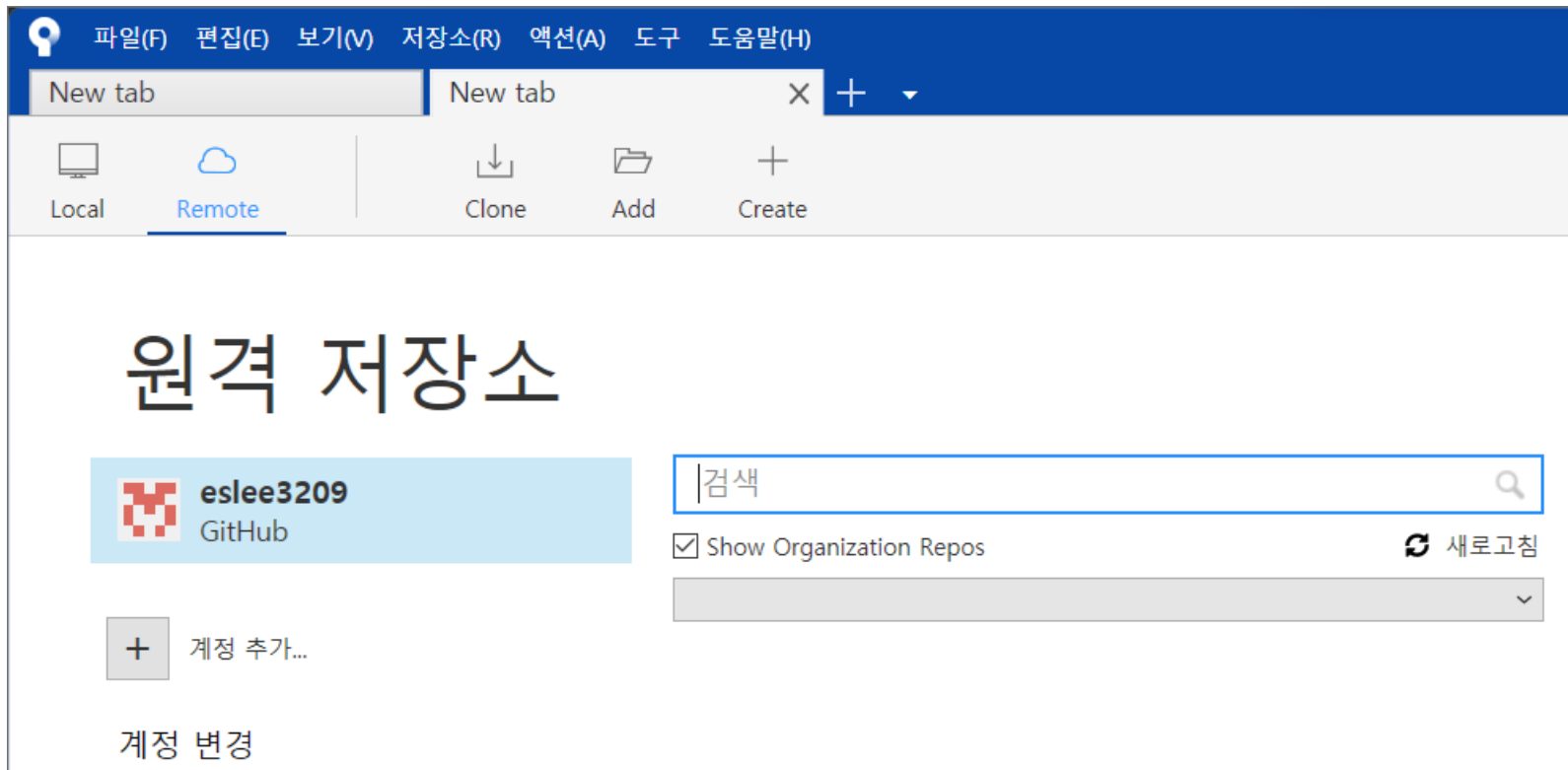
- Create 탭
  - 내 컴퓨터에 있는 일반 폴더를 git으로 버전 관리할 수 있도록 로컬 저장소를 생성함
  - git init 명령어에 해당됨
  - 이렇게 로컬 저장소가 생성되면 그 때부터 버전 관리가 가능하게 됨



The screenshot shows a web-based interface for creating a new repository. At the top, there is a navigation bar with a search icon and menu items: 파일(F), 편집(E), 보기(V), 저장소(R), 액션(A), 도구, and 도움말(H). Below this is a tab bar with 'New tab', a close button (X), and a dropdown arrow. The main content area has a header 'Create a repository'. Below the header are three input fields: '목적지 경로:' (Destination path), '이름:' (Name), and a dropdown menu currently set to 'Git'. To the right of the '목적지 경로:' field is a '탐색' (Search) button. Below the input fields is a checkbox labeled '계정에 저장소 생성하기' (Create repository on account). At the bottom is a blue button labeled '생성' (Create).

# 소스트리 둘러보기

- 탭 옆의 +아이콘
  - +를 누르면 새로운 탭을 열어 다른 저장소를 관리하게 됨

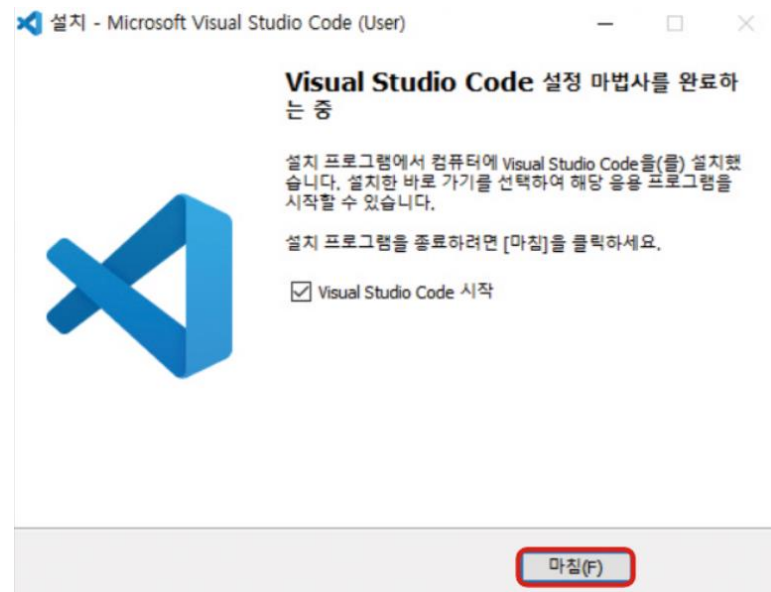
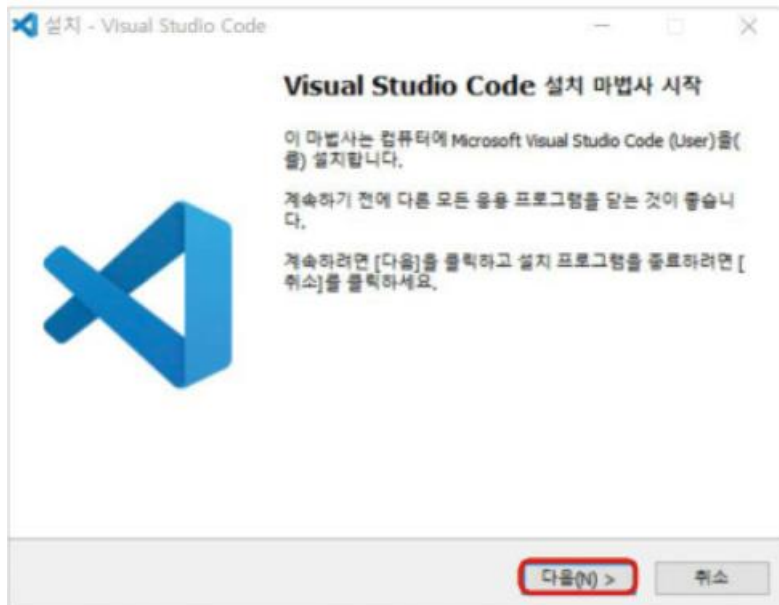


# Visual Studio Code

- Visual studio code란?
  - 코드를 편집하고 실행시키기 위해 사용하는 텍스트 에디터
  - 메모장으로도 코드를 작성하고 수정할 수 있지만 커다란 코드 전체를 메모장으로 만드는 것은 매우 힘들
  - Visual studio code는 개발자에게 여러 유용한 기능을 제공하는 에디터이며 무료임

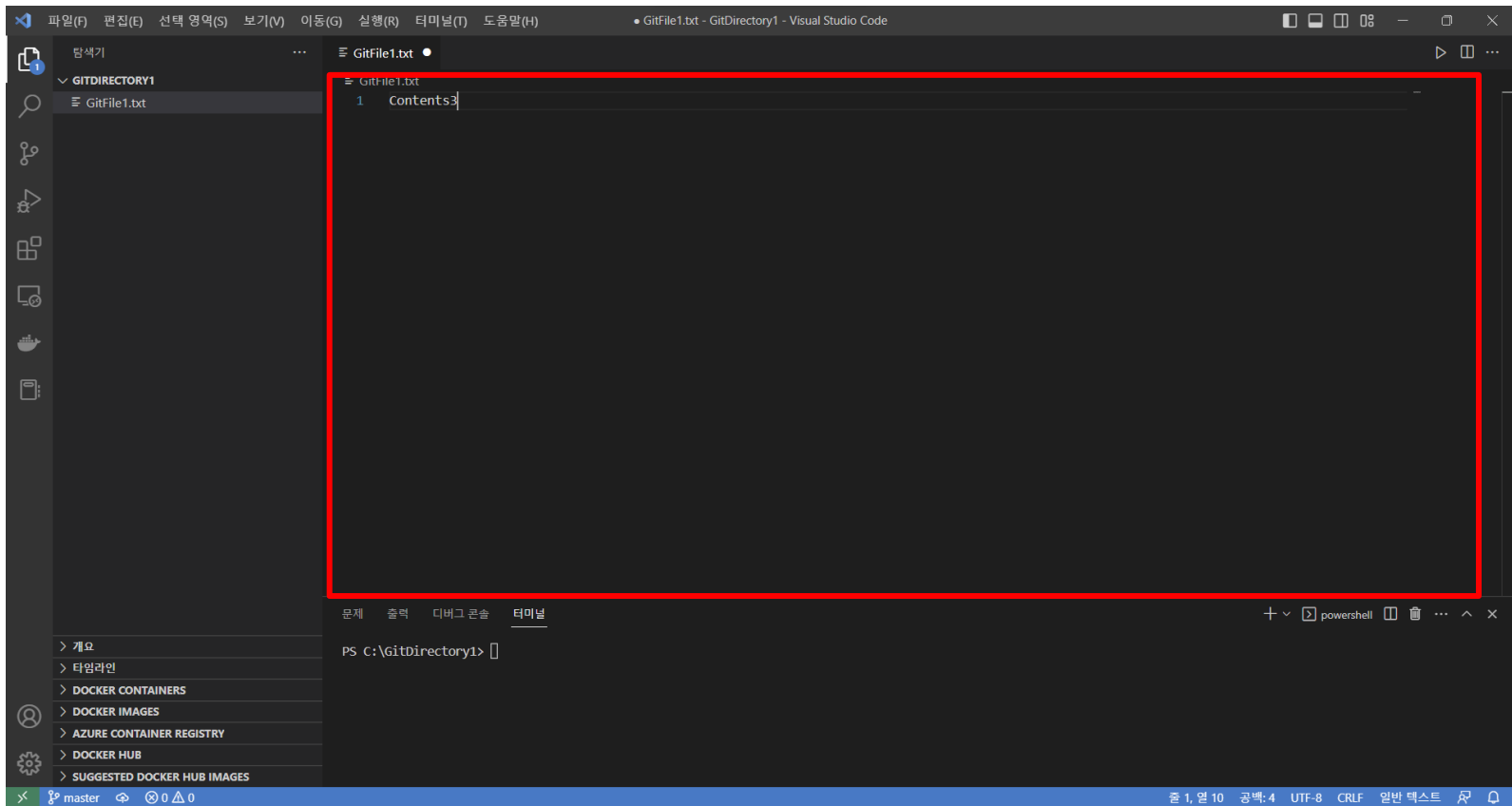
# Visual Studio Code 설치

- Visual studio code 설치 방법
  - <https://code.visualstudio.com/> 로 접속
  - [Download for Windows] 버튼을 클릭하여 VSCodeUser Setup 설치파일을 다운로드하며 설치
  - 설치 창이 뜨면 기본 설정을 유지한채 [다음] 및 [설치] 버튼을 클릭해서 마지막까지 설치화면 진행한 후 [마침]을 클릭함



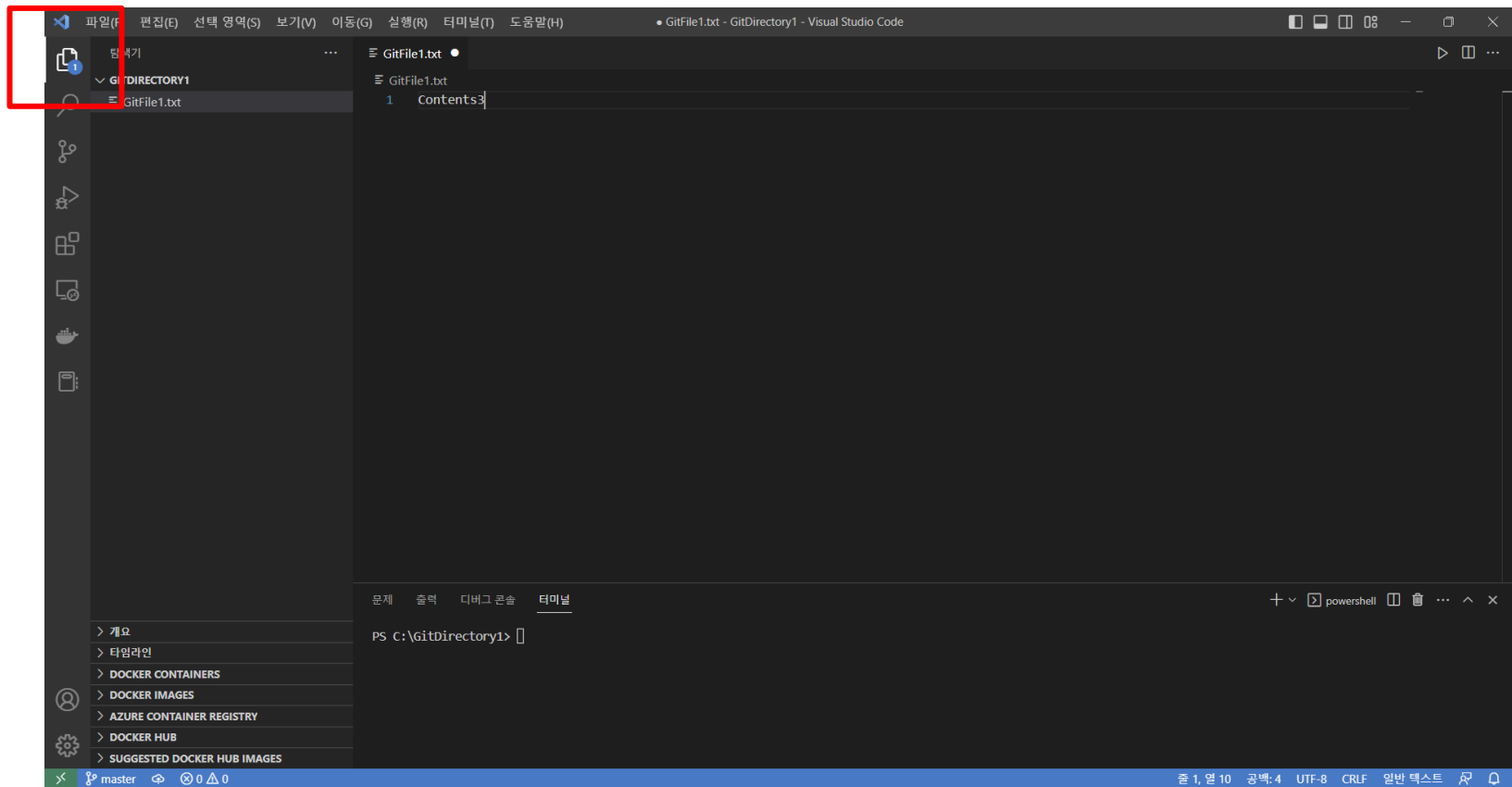
# Visual Studio Code 둘러보기

- 편집기
  - 파일을 열어 코드를 추가 및 수정할 수 있는 탭
  - 텍스트 에디터의 가장 핵심 기능



# Visual Studio Code 둘러보기

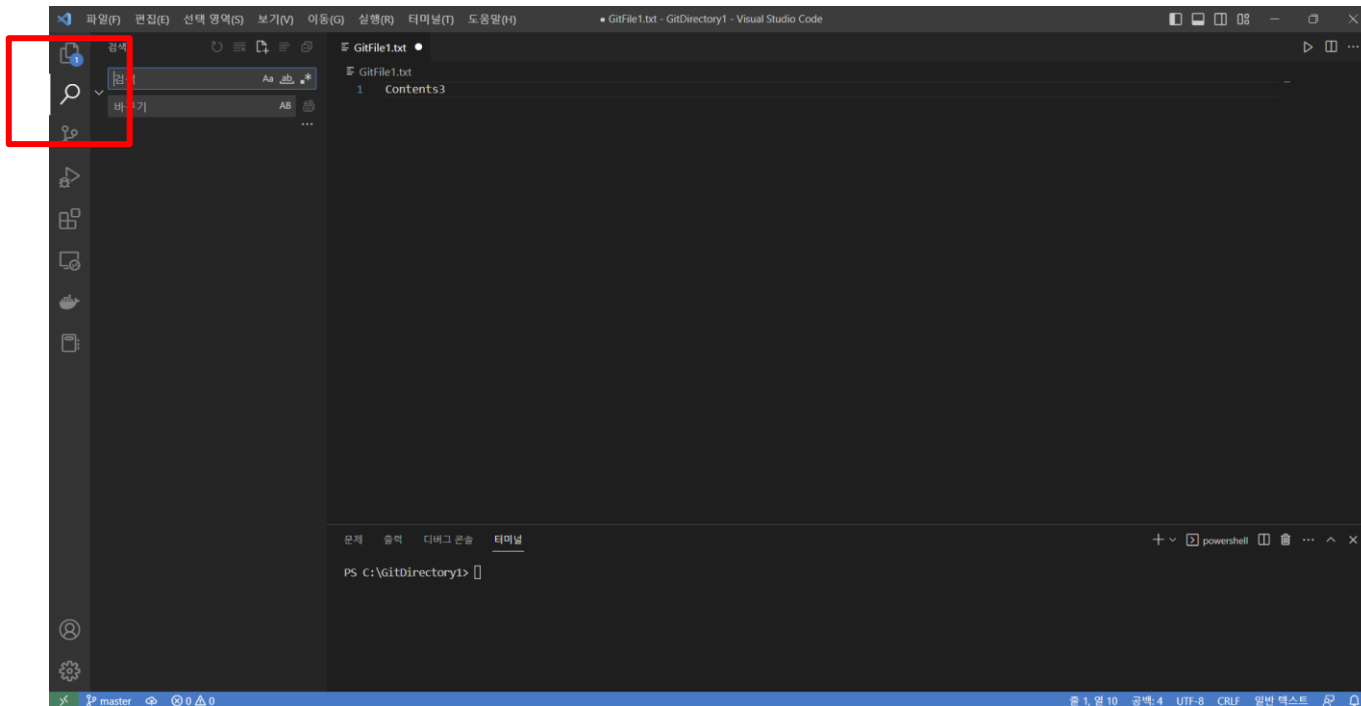
- 탐색기
  - 코딩 작업을 진행할 폴더 트리 및 열려 있는 파일을 볼 수 있음





# Visual Studio Code 둘러보기

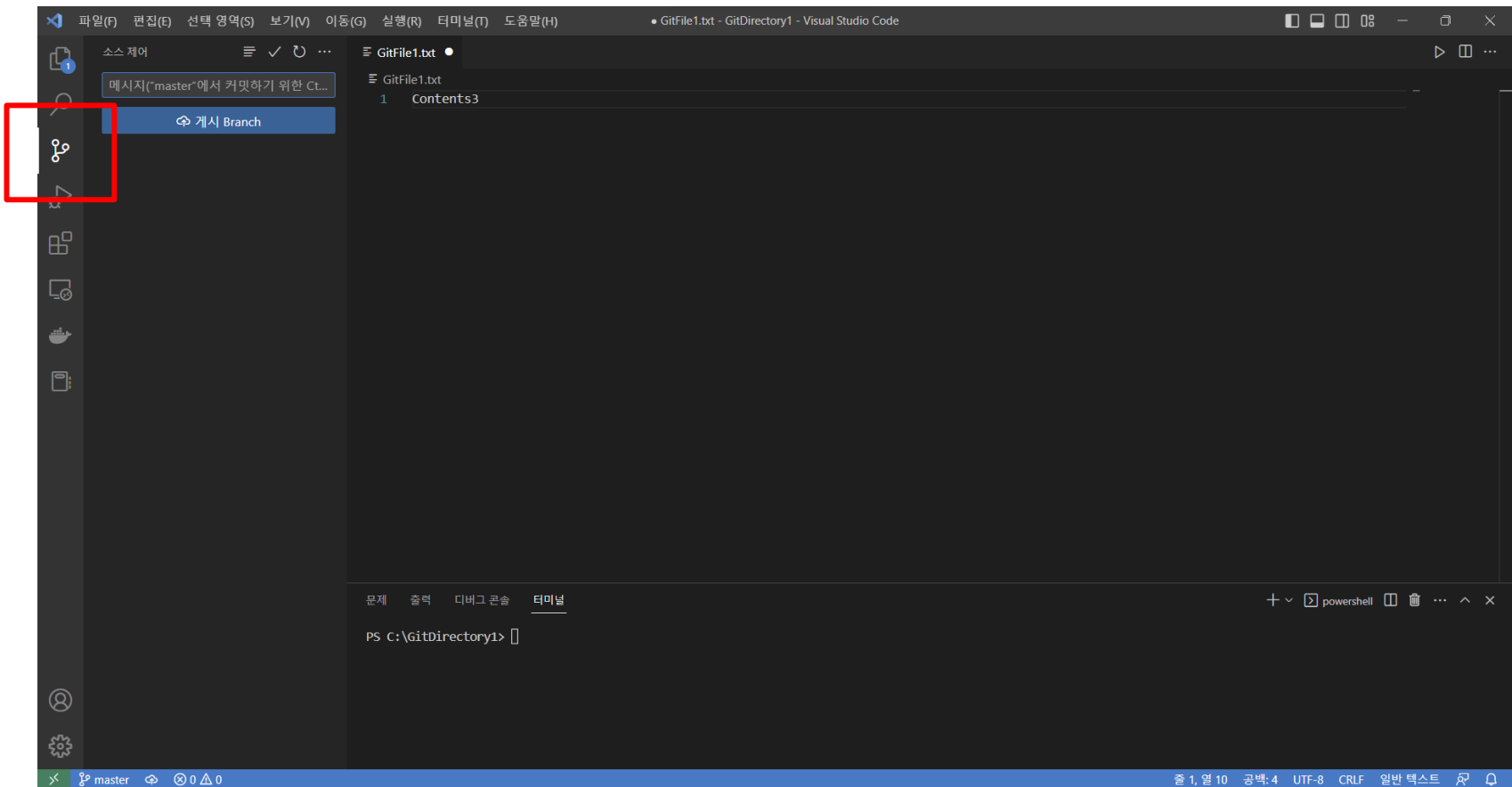
- 검색
  - 열려 있는 폴더 대상으로 검색할 수 있음
  - 특정 폴더를 빼고 검색하거나 특정 단어를 한번에 수정하는 등 편리하게 사용 가능
  - 단축키는 Ctrl+Shift+F



# Visual Studio Code 둘러보기

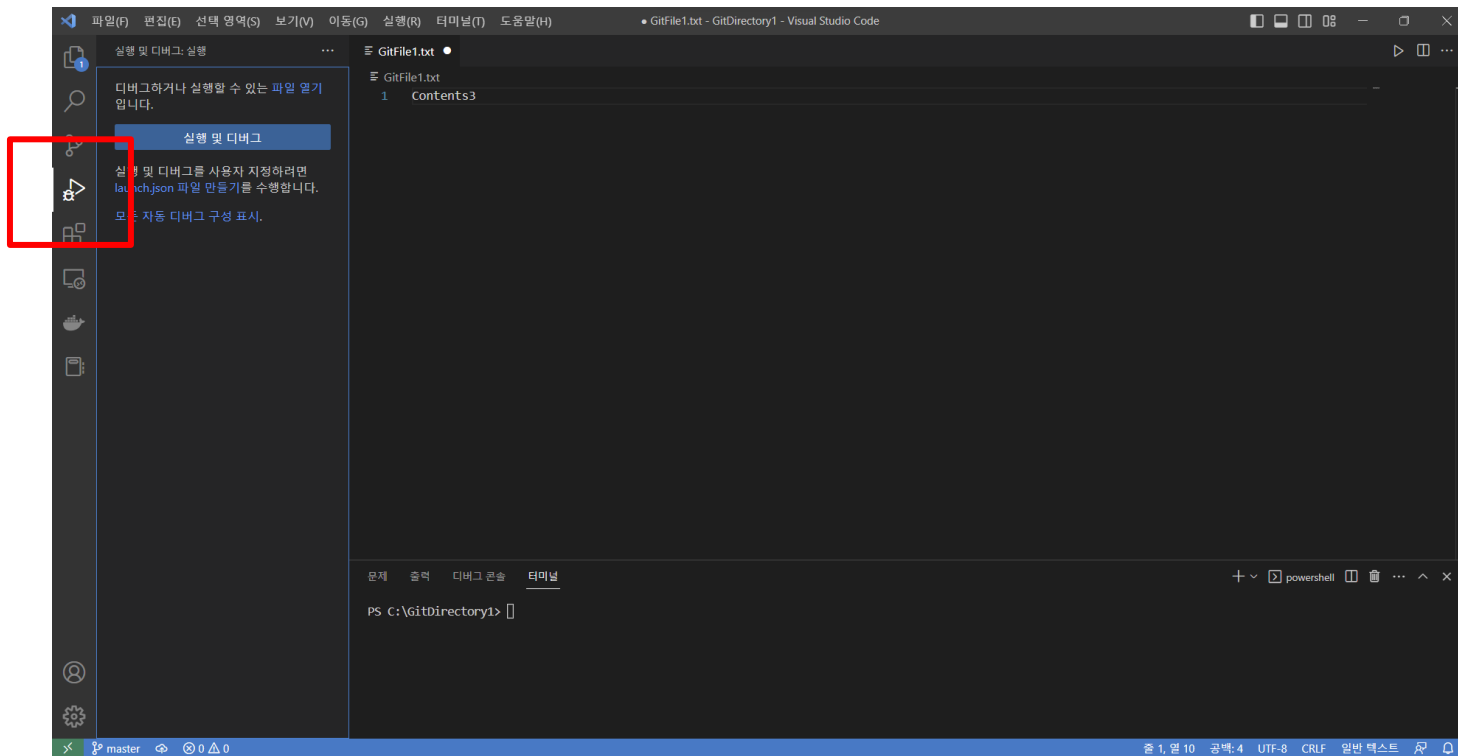
- Git

- 비주얼 스튜디오 코드에서 기본적으로 Git GUI 플러그인을 제공하고 있어서 소스트리를 사용하지 않아도 간단한 버전 관리 작업을 할 수 있음



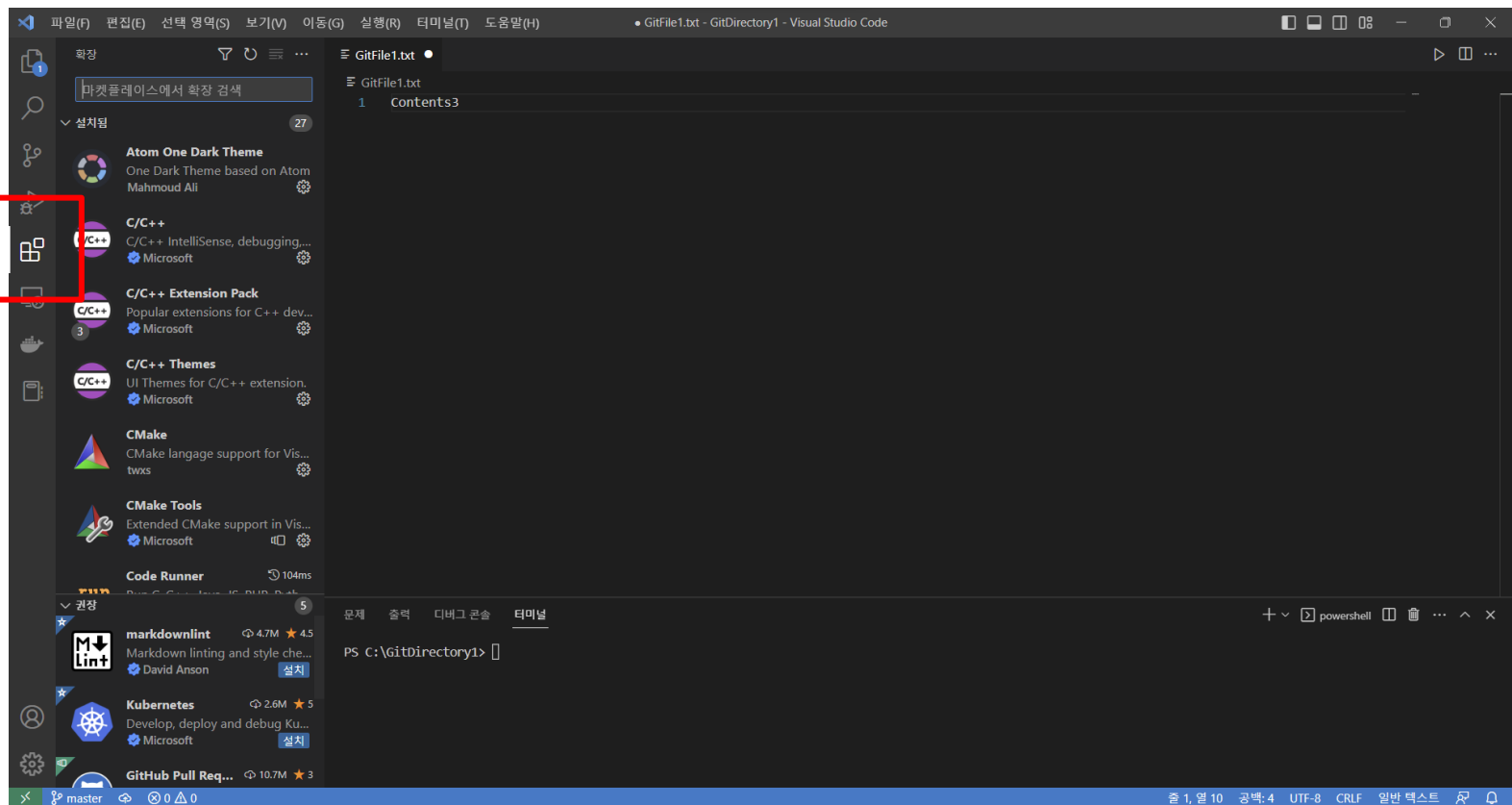
# Visual Studio Code 둘러보기

- 디버그
  - 코드를 돌려보고 각 변수에 어떤 값이 담겨있는지, 에러는 어디서 나는지 확인할 수 있음
  - 개발 언어에 따른 환경 설정이 필요함



# Visual Studio Code 둘러보기

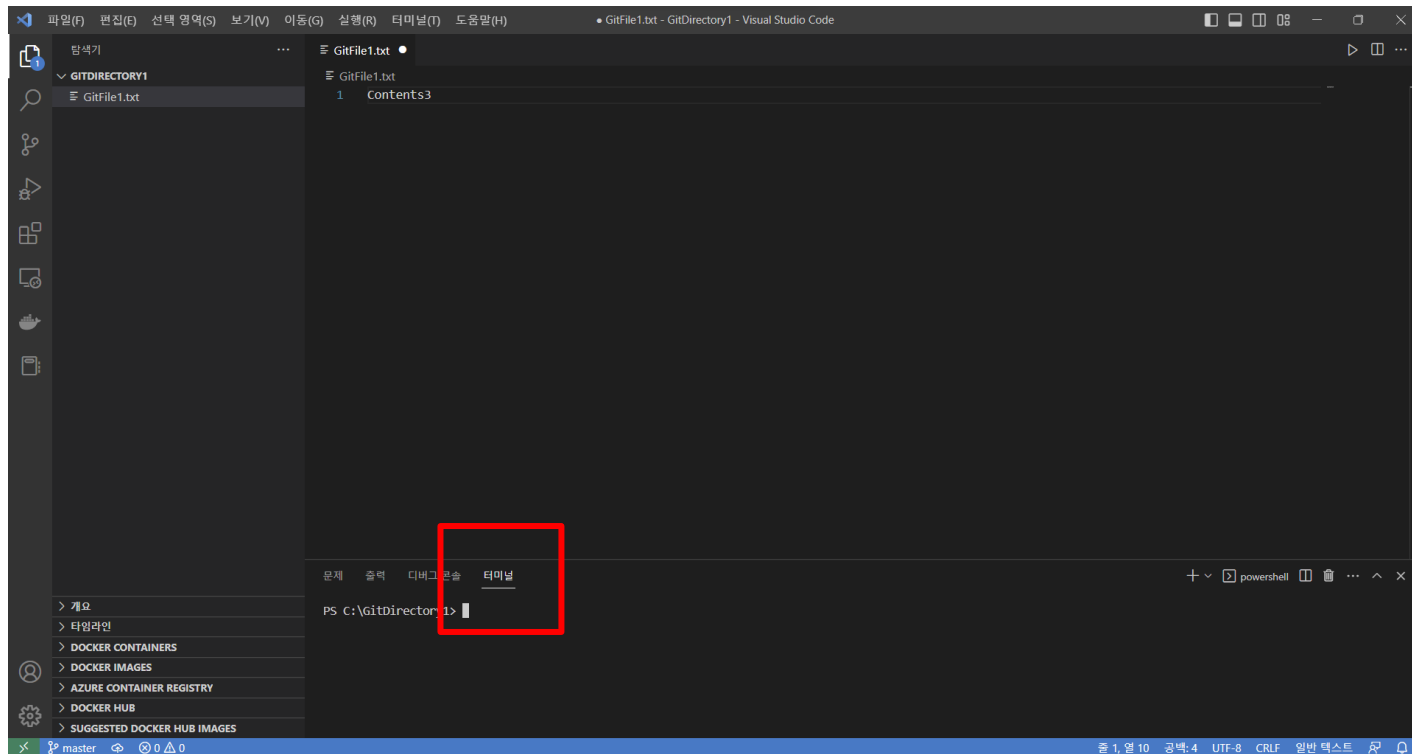
- 확장
  - 코드 문법 검사, 자동 정렬 등 여러 유용한 확장 플러그인을 설치할 수 있음



# Visual Studio Code 둘러보기

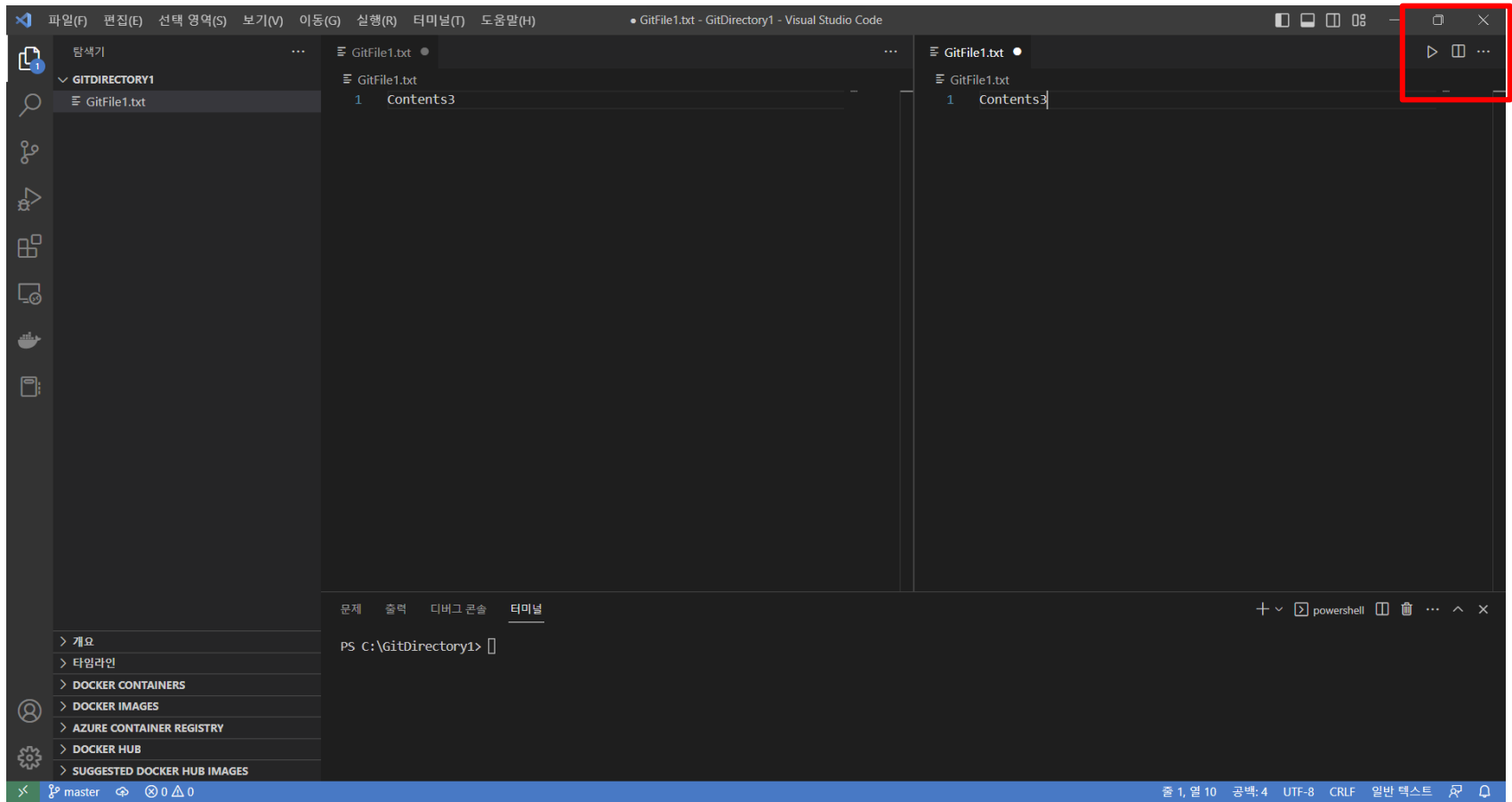
- 통합터미널

- 컴퓨터에 텍스트로 명령을 내릴 수 있는 터미널을 비주얼 스튜디오 코드 내부에서 사용할 수 있는 기본 플러그인
- 보기>통합 터미널을 선택하면 볼 수 있음
- 통합 터미널을 사용하면 앱 사이 전환 불편함을 줄일 수 있음



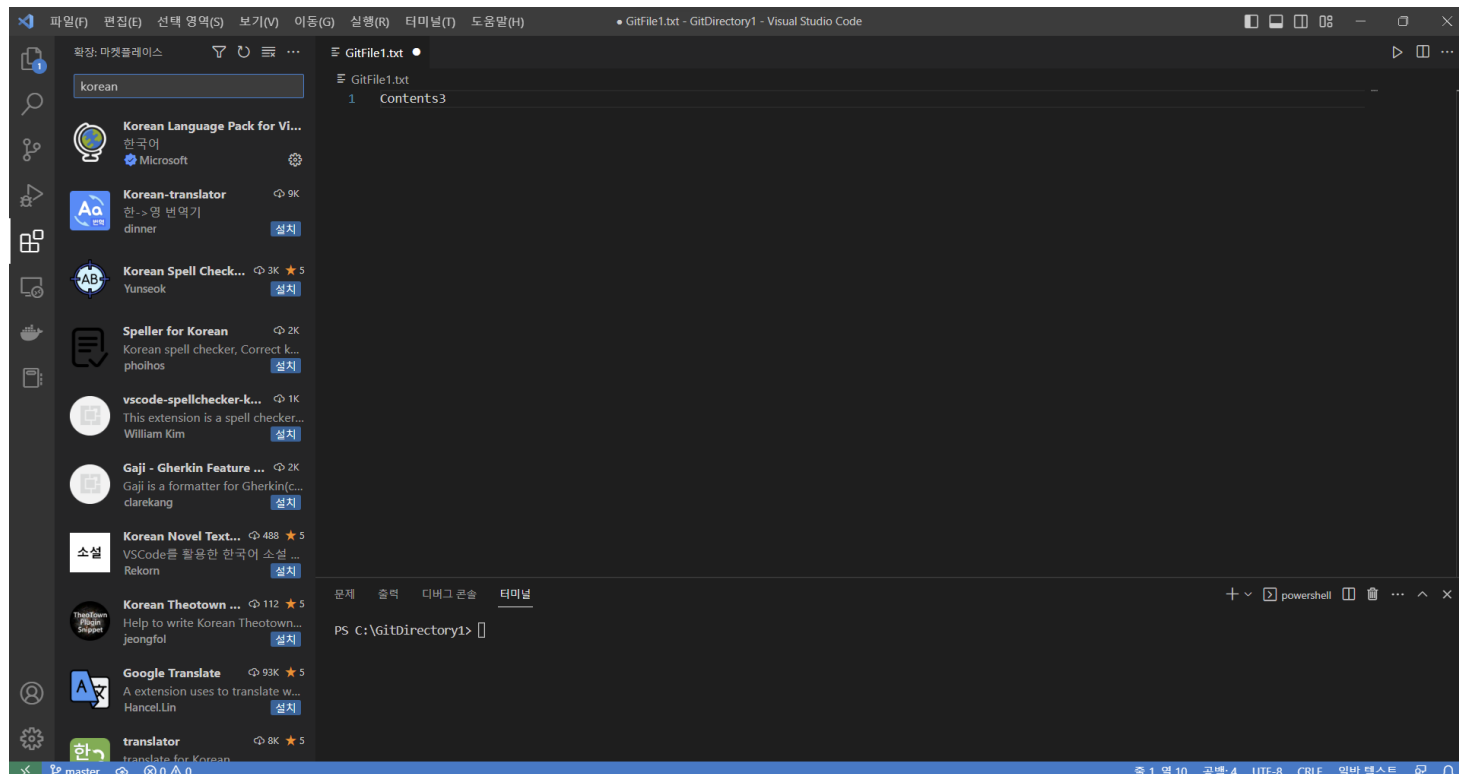
# Visual Studio Code 둘러보기

- 편집기 분할
  - 코드 편집기를 상하좌우로 분할해서 한번에 여러 파일을 볼 수 있게 함



# Visual Studio Code 한국어 설정

- 왼쪽 5개의 아이콘 중 5번째 확장(extension)을 선택하여 검색 창에 Korean을 검색한 후에 [Korean Language Pack for Visual Studio Code] 플러그인을 설치함
- 그러면 visual studio code를 한국어로 사용할 수 있음



# GitHub 둘러보기

- GitHub 메인화면

The screenshot shows the GitHub homepage for user **eslee3209**. The interface is dark-themed. At the top, there's a navigation bar with the GitHub logo, a search bar, and links to Pull requests, Issues, Codespaces, Marketplace, and Explore. Below the navigation bar, the user's profile is shown with a dropdown menu. The main content area is divided into several sections:

- Top Repositories:** A list of repositories owned by the user, including `eslee3209/GitRepository1`, `snu-cc/CCL-CKKS`, `eslee3209/approxCNN`, `eslee3209/DeepResNet-FHE`, `eslee3209/MinimaxComp_degrees`, `eslee3209/MinimaxComp`, and `eslee3209/SEALCNN`.
- Recent activity:** A section for tracking activity across the user's repositories.
- Join GitHub Global Campus!** A prominent banner for the Global Campus program, which offers industry tools, events, and a growing student community. It includes a "Join Global Campus" button.
- Start coding instantly with GitHub Codespaces:** A sidebar promotion for Codespaces, highlighting the ability to spin up fully configured development environments on powerful VMs.
- Latest changes:** A list of recent updates, including "Separate receipts for GitHub Sponsors", "Increased custom repository roles per organization", "More love for innersource collaboration and enterprise fork policies", and "Code scanning adds support for Kotlin 1.8.0 analysis (beta)".



# GitHub 둘러보기

- 대시보드 컨텍스트

- 원격저장소를 개인 계정 뿐 아니라 회사나 단체 이름으로 단체 계정을 만들어 관리할 수도 있음
- 이 대시보드 컨텍스트 전환 버튼을 이용해 메인 화면을 어떤 계정으로 할지 선택할 수 있음

The screenshot shows the GitHub dashboard interface. On the left sidebar, the user profile dropdown menu is open, displaying the username 'eslee3209' with a downward arrow. Below the username, a list of repositories is shown, including 'GitRepository1', 'snu-cc/CCL-CKKS', 'approxCNN', 'DeepResNet-FHE', 'MinimaxComp\_degrees', 'MinimaxComp', and 'SEALCNN'. The main content area features a 'Join GitHub Global Campus!' banner, a 'Start coding instantly with GitHub Codespaces' card, and a 'Latest changes' section. The bottom navigation bar includes 'Following' and 'For you (Beta)' tabs.

# GitHub 둘러보기

- 저장소 목록

- 현재 기여하고 있는 모든 원격저장소 목록이 표시됨
- 최근에 코드를 올린 순서대로 정렬됨
- 오른쪽의 [New] 버튼으로 새 원격저장소를 만들 수도 있음

eslee3209

Search or jump to... Pull requests Issues Codespaces Marketplace Explore

**Top Repositories** [New](#)

Find a repository...

- eslee3209/GitRepository1
- snu-ccl/CCL-CKKS
- eslee3209/approxCNN
- eslee3209/DeepResNet-FHE
- eslee3209/MinimaxComp\_degrees
- eslee3209/MinimaxComp
- eslee3209/SEALCNN

Show more

**Recent activity**

When you take actions across GitHub, we'll provide links to that activity here.

**Join GitHub Global Campus!**

Prepare for a career in tech by joining GitHub Global Campus. Global Campus will help you get the practical industry knowledge you need by giving you access to industry tools, events, learning resources and a growing student community.

[Join Global Campus](#)

**Start coding instantly with GitHub Codespaces**

Spin up fully configured dev environments on powerful VMs that start in seconds. Get up to 60 hours a month of free time.

[Get started](#)

**Latest changes**

- 20 hours ago  
Separate receipts for GitHub Sponsors
- Yesterday  
Increased custom repository roles per organization
- Yesterday  
More love for innersource collaboration and enterprise fork policies
- 3 days ago  
Code scanning adds support for Kotlin 1.8.0 analysis (beta)

[View changelog](#)

# GitHub 둘러보기

- 팀 목록
  - 단체 계정 안에 더 작은 분류인 팀을 만들 수 있음
  - 내가 속한 팀 목록이 보임

The screenshot shows the GitHub homepage for user 'eslee3209'. The interface is dark-themed. At the top, there's a search bar and navigation links for Pull requests, Issues, Codespaces, Marketplace, and Explore. The left sidebar shows the user's profile, a 'New' button, and a list of 'Top Repositories' including 'eslee3209/GitRepository1', 'snu-ccl/CCL-CKKS', 'eslee3209/approxCNN', 'eslee3209/DeepResNet-FHE', 'eslee3209/MinimaxComp\_degrees', 'eslee3209/MinimaxComp', and 'eslee3209/SEALCNN'. Below this is a 'Recent activity' section. The main content area features a large banner for 'Join GitHub Global Campus!' with a 'Join Global Campus' button. To the right of the banner is a 'Start coding instantly with GitHub Codespaces' card with a 'Get started' button. Further right is a 'Latest changes' section listing recent updates. At the bottom, there are tabs for 'Following' and 'For you' (marked as Beta).

# GitHub 둘러보기

- 풀 리퀘스트 (Pull request)
  - 관련된 모든 pull request를 볼 수 있음
  - Pull request는 체계적인 코드 협업을 도와주는 일등공신 기능임

The screenshot shows the GitHub web interface with the 'Pull requests' tab highlighted in the top navigation bar. The interface includes a search bar, a list of repositories on the left, a central area with a 'Join GitHub Global Campus' banner and various event cards, and a right sidebar with a 'Start coding instantly with GitHub Codespaces' banner and a 'Latest changes' section.

**Navigation Bar:** Search or jump to..., Pull requests (highlighted), Issues, Codespaces, Marketplace, Explore

**Left Sidebar:** eslee3209, Top Repositories (New), Find a repository..., eslee3209/GitRepository1, snu-ccl/CCL-CKKS, eslee3209/approxCNN, eslee3209/DeepResNet-FHE, eslee3209/MinimaxComp\_degrees, eslee3209/MinimaxComp, eslee3209/SEALCNN, Show more, Recent activity

**Central Area:** Join GitHub Global Campus! Prepare for a career in tech by joining GitHub Global Campus. Global Campus will help you get the practical industry knowledge you need by giving you access to industry tools, events, learning resources and a growing student community. Follow your Expert, Breaking into tech: Internship edition with Helen Huang, Level up your code with TwilioQuest, Learning by teaching for your community - Cassidy Williams, Popular offers you have not claimed, Curated Experiences with popular offers, Virtual event kit, January 22, 2021: Level up your code with TwilioQuest, February 1, 2021: GitHub Campus Experts applications are open, Artificial Intelligence & assignments, Lists and Leaps, Week Five: Functions, Watch a Campus TV episode, View projects at our gallery, Learn more about an event, Claim a Student Pack offer, Web meet 302, Web Meet

**Right Sidebar:** Start coding instantly with GitHub Codespaces, Spin up fully configured dev environments on powerful VMs that start in seconds. Get up to 60 hours a month of free time. Get started, Latest changes: 20 hours ago: Separate receipts for GitHub Sponsors, Yesterday: Increased custom repository roles per organization, Yesterday: More love for innersource collaboration and enterprise fork policies, 3 days ago: Code scanning adds support for Kotlin 1.8.0 analysis (beta), View changelog →

# GitHub 둘러보기

- 이슈 (Issues)
  - 각 저장소에서 해결해야하는 일들을 이슈로 만들어둘 수 있음
  - 이 페이지에서는 나와 관련된 모든 이슈를 볼 수 있음

The screenshot shows the GitHub web interface with the 'Issues' tab highlighted in the top navigation bar. The left sidebar displays the user's profile 'eslee3209' and a list of top repositories. The main content area features a 'Join GitHub Global Campus!' banner and a grid of featured repositories and events. The right sidebar shows a 'Start coding instantly with GitHub Codespaces' banner and a 'Latest changes' section with a list of recent updates.

eslee3209

Search or jump to... Pull requests **Issues** Codespaces Marketplace Explore

Top Repositories

Find a repository...

eslee3209/GitRepository1

snu-cc/CL-CKKS

eslee3209/approxCNN

eslee3209/DeepResNet-FHE

eslee3209/MinimaxComp\_degrees

eslee3209/MinimaxComp

eslee3209/SEALCNN

Show more

Recent activity

When you take actions across GitHub, we'll provide links to that activity here.

Join GitHub Global Campus!

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Follow your Expert

Breaking into tech: Internship edition with Helen Huang

Level up your code with TwilioQuest

Learning by teaching for your community - Cassidy Williams

Popular offers you have not claimed

Curated Experiences with popular offers

Virtual event kit

January 22, 2021

Level up your code with TwilioQuest

February 1, 2021

GitHub Campus Experts applications are open

Artificial Intelligence 6 assignments

Lists and Leaps Due by May 1, 2021, 12:00 PST

Week Five: Functions Due by Aug 16, 2021, 14:00 PST

Connect your local Expert

View projects at our gallery

Learn more about an event

Click on an event

Watch a Campus TV episode

Web meet 302

Start coding instantly with GitHub Codespaces

Spin up fully configured dev environments on powerful VMs that start in seconds. Get up to 60 hours a month of free time.

Get started

Latest changes

- 20 hours ago Separate receipts for GitHub Sponsors
- Yesterday Increased custom repository roles per organization
- Yesterday More love for innersource collaboration and enterprise fork policies
- 3 days ago Code scanning adds support for Kotlin 1.8.0 analysis (beta)

View changelog →

Following For you **Beta**



# GitHub 둘러보기

- 마켓플레이스 (Marketplace)
  - 코드를 github에 올리면 자동으로 빌드해 주거나, 메신저와 연동할 수 있는 등의 플러그인을 구입할 수 있음

The screenshot shows the GitHub homepage with a dark theme. The 'Marketplace' tab in the top navigation bar is highlighted with a red box. The main content area features a 'Join GitHub Global Campus!' banner. On the left sidebar, the user 'eslee3209' is logged in, and a list of top repositories is shown. On the right, there are two promotional cards: 'Start coding instantly with GitHub Codespaces' and 'Latest changes'.

Search or jump to... Pull requests Issues Codespaces **Marketplace** Explore

eslee3209

Top Repositories

Find a repository...

eslee3209/GitRepository1

snu-ccl/CCL-CKKS

eslee3209/approxCNN

eslee3209/DeepResNet-FHE

eslee3209/MinimaxComp\_degrees

eslee3209/MinimaxComp

eslee3209/SEALCNN

Show more

Recent activity

When you take actions across GitHub, we'll provide links to that activity here.

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Latest changes

- 20 hours ago Separate receipts for GitHub Sponsors
- Yesterday Increased custom repository roles per organization
- Yesterday More love for innersource collaboration and enterprise fork policies
- 3 days ago Code scanning adds support for Kotlin 1.8.0 analysis (beta)

View changelog →

Following For you (Beta)

# GitHub 둘러보기

- 둘러보기 (Explore)
  - Github와 관련된 블로그 기사나, 요즘 뜨는 저장소 등을 볼 수 있음

The screenshot shows the GitHub Explore page. The top navigation bar includes links for Pull requests, Issues, Codespaces, Marketplace, and Explore (which is highlighted with a red box). The left sidebar displays the user's profile 'eslee3209' and a list of top repositories. The main content area features a 'Join GitHub Global Campus!' banner, a 'Start coding instantly with GitHub Codespaces' card, and a 'Latest changes' section. The bottom of the page shows a 'Following' tab and a 'Beta' badge.

# GitHub 둘러보기

- 알림 (Notifications)

- 나와 관련된 모든 이슈, 풀 리퀘스트, 멘션(닉네임 태그) 등이 알림으로 오고, 목록으로 저장됨
- Watch하는 저장소 소식도 볼 수 있는데, 참여하진 않지만 소식을 받아보고 싶을 때 유용함

The screenshot shows the GitHub homepage with a dark theme. In the top right corner, the notification bell icon is highlighted with a red square. The interface includes a search bar, navigation links for Pull requests, Issues, Codespaces, Marketplace, and Explore. The left sidebar shows the user's profile (eslee3209) and a list of top repositories. The main content area features a 'Join GitHub Global Campus' banner and a 'Start coding instantly with GitHub Codespaces' card. The right sidebar displays 'Latest changes' with a list of recent updates.



# GitHub 둘러보기

- 새로 만들기

- 새 저장소나 단체, 혹은 gist를 만들 수 있음
- gits는 저장소보다 작은 코드를 올리고 싶은 경우 유용. 작은 코드 조각을 간편하게 올릴 수 있음

The screenshot shows the GitHub homepage. In the top right corner, a red box highlights the '+' button, which is used to create new repositories, organizations, or gists. The page also features a search bar, navigation links for Pull requests, Issues, Codespaces, Marketplace, and Explore, and a sidebar with the user's profile and repository list. A central banner promotes GitHub Global Campus, and a right-hand panel offers a quick start guide for Codespaces and a list of recent changes.

# GitHub 둘러보기

- 최근 활동 (Recent activity)
  - 내가 팔로우하는 저장소의 최근 활동이 보임

The screenshot shows the GitHub homepage with a dark theme. The 'Recent activity' section is highlighted with a red box. It contains the text: 'When you take actions across GitHub, we'll provide links to that activity here.'

The main content area features a 'Join GitHub Global Campus!' banner with a 'Join Global Campus' button. Below the banner, there are several cards for 'Follow your Expert', 'Breaking into tech', 'Level up your code with TwilioQuest', and 'Learning by teaching for your community - Cassidy Williams'. There are also cards for 'Popular offers you have not claimed', 'Curated Experiences with popular offers', and 'Virtual event kit'. The 'Recent activity' section is located at the bottom left of the main content area.

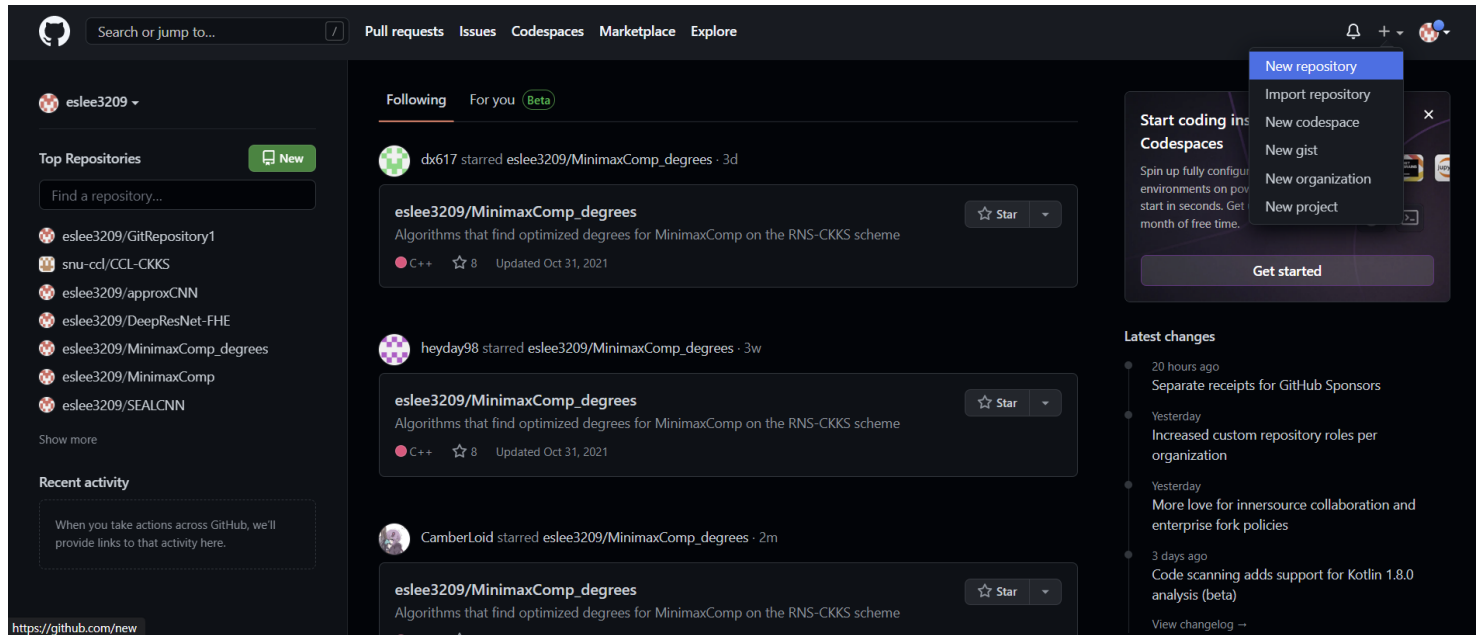
The right sidebar shows a 'Start coding instantly with GitHub Codespaces' banner with a 'Get started' button. Below it, the 'Latest changes' section lists updates: '20 hours ago: Separate receipts for GitHub Sponsors', 'Yesterday: Increased custom repository roles per organization', 'Yesterday: More love for innersource collaboration and enterprise fork policies', and '3 days ago: Code scanning adds support for Kotlin 1.8.0 analysis (beta)'. A 'View changelog' link is at the bottom of the sidebar.

# GitHub 원격저장소

- 원격저장소
  - 원격저장소는 웹사이트(예: github)에 협업을 위해 공용 폴더를 만든 것임

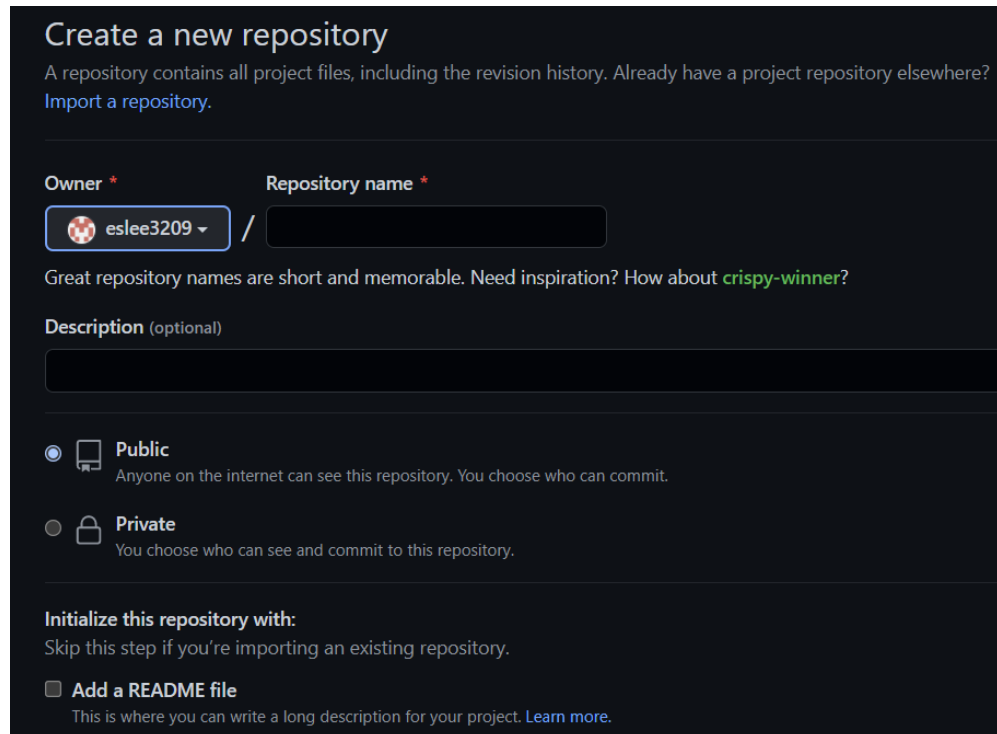
# GitHub 원격저장소 생성

- 원격저장소 생성 방법
  - https://github.com 에 접속하고 로그인함
  - 우측 상단 [+] 아이콘을 클릭한 후 [New repository] 메뉴를 선택



# GitHub 원격저장소 생성 상세옵션

- Repository name
  - 원격저장소 이름을 입력함. 작업할 프로젝트 이름을 입력함
  - 이 이름에 따라 저장소 url이 결정됨




The screenshot shows the 'Create a new repository' page on GitHub. It includes a title, a subtitle, a link to 'Import a repository', and input fields for 'Owner' (set to 'eslee3209') and 'Repository name'. Below these is a suggestion for repository names. There is an optional 'Description' field. The 'Public' option is selected for repository visibility, with a 'Private' option also available. At the bottom, there is a section to 'Initialize this repository with' which includes a checkbox to 'Add a README file'.

Create a new repository


A repository contains all project files, including the revision history. Already have a project repository elsewhere?  
[Import a repository.](#)


Owner \* Repository name \*

 eslee3209 /

Great repository names are short and memorable. Need inspiration? How about [crispy-winner?](#)

Description (optional)

☒  **Public**  
Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**  
You choose who can see and commit to this repository.

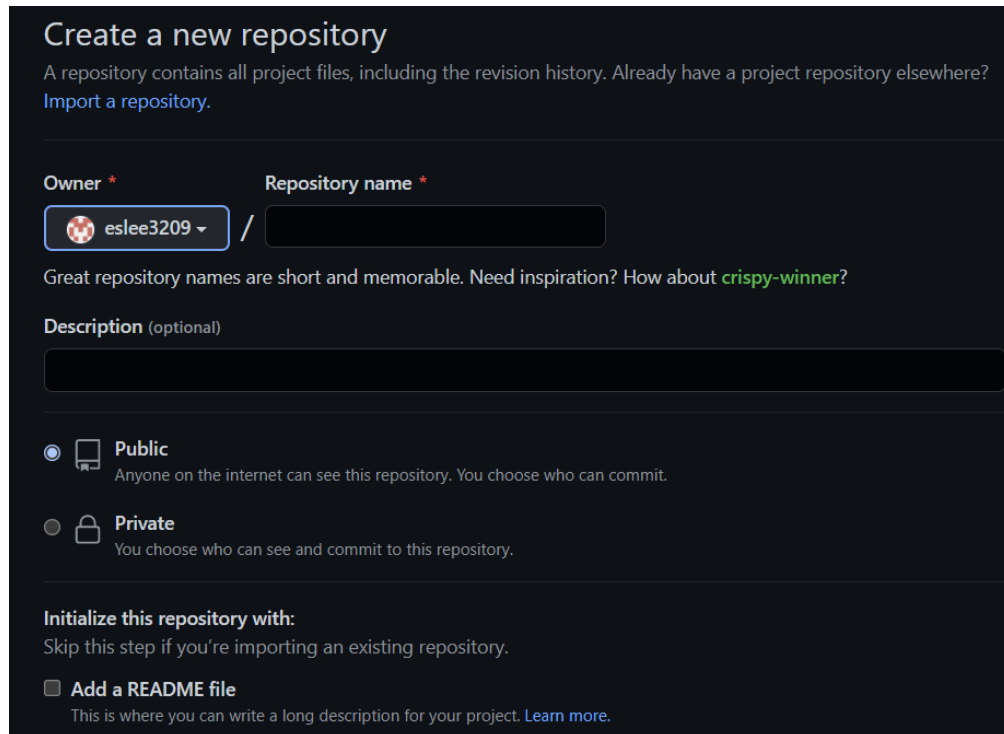
Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ **Add a README file**  
This is where you can write a long description for your project. [Learn more.](#)

# GitHub 원격저장소 생성 상세옵션

- Description
  - 원격저장소 간단한 설명
- Public/Private
  - 공개/비공개 설정임
  - 비공개 저장소는 3인 이하의 공동작업자에게만 무료임




The screenshot shows the 'Create a new repository' page on GitHub. At the top, it says 'Create a new repository' and provides a brief explanation of what a repository is. Below this, there are two main input fields: 'Owner' and 'Repository name'. The 'Owner' field is set to 'eslee3209' with a dropdown arrow. The 'Repository name' field is empty. Below these fields, there is a suggestion: 'Great repository names are short and memorable. Need inspiration? How about **crispy-winner**?'. Underneath, there is a 'Description (optional)' text area. Further down, there are two radio button options for repository visibility: 'Public' (selected) and 'Private'. The 'Public' option is described as 'Anyone on the internet can see this repository. You choose who can commit.' The 'Private' option is described as 'You choose who can see and commit to this repository.' At the bottom, there is a section titled 'Initialize this repository with:' which includes a checkbox for 'Add a README file' and a link to 'Learn more'.

Create a new repository


A repository contains all project files, including the revision history. Already have a project repository elsewhere?  
[Import a repository.](#)


Owner \* Repository name \*

 eslee3209 /

Great repository names are short and memorable. Need inspiration? How about **crispy-winner**?

Description (optional)

☒  **Public**  
Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**  
You choose who can see and commit to this repository.

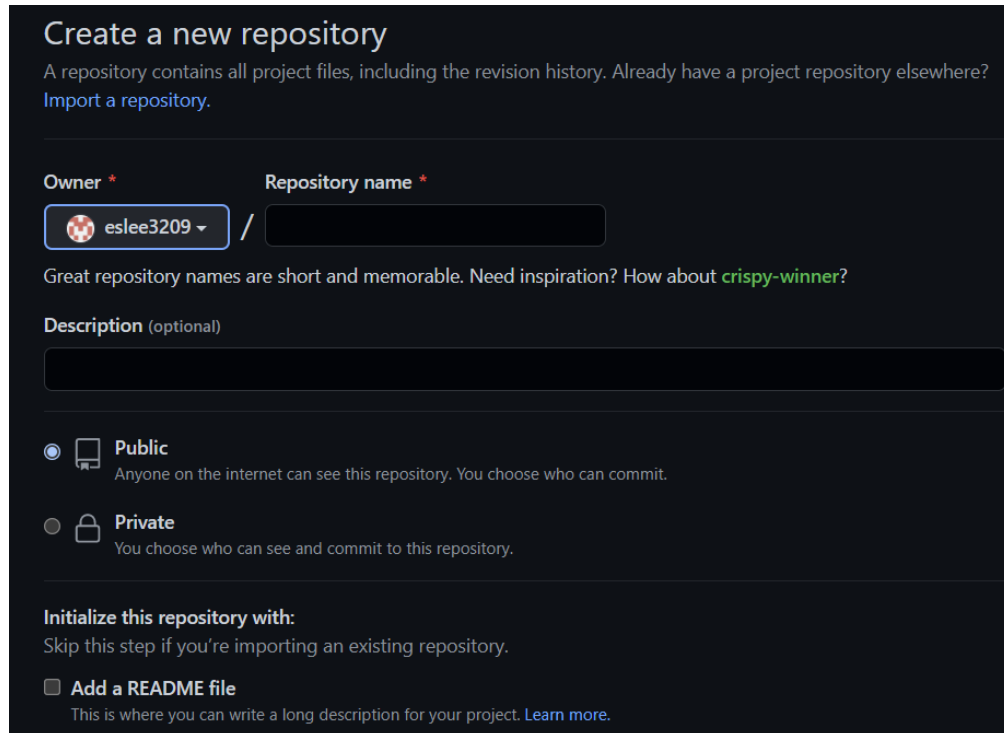
Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ **Add a README file**  
This is where you can write a long description for your project. [Learn more.](#)

# GitHub 원격저장소 생성 상세옵션

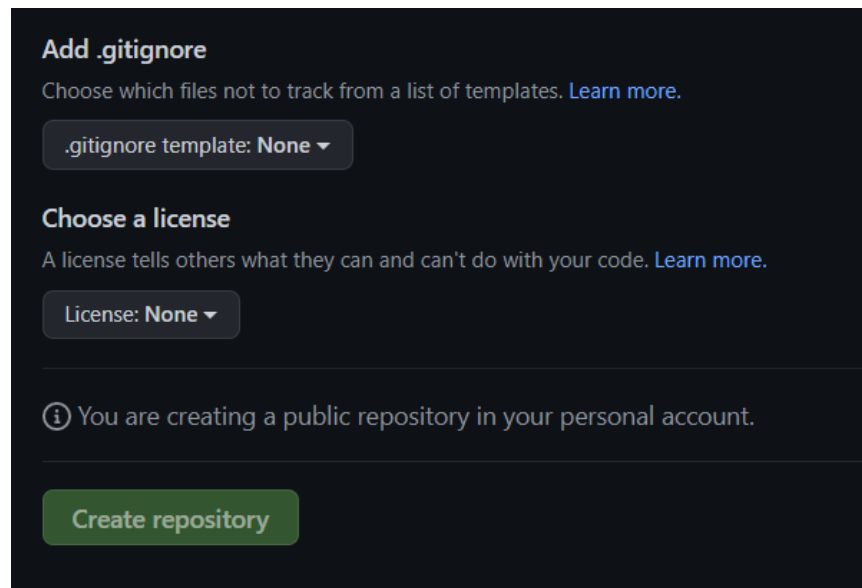
- Initialize this repository with:
  - 이 옵션에 체크하면 빈 저장소가 아니라 README.md 파일이 담긴 저장소가 생성됨
  - 저장소든 폴더든 코드로 공간을 만들 때 코드에 대한 설명을 README.md라는 이름의 파일에 기록함



The screenshot shows the GitHub 'Create a new repository' page. At the top, it says 'Create a new repository' and provides a brief explanation of what a repository is. Below this, there are two input fields: 'Owner' and 'Repository name'. The 'Owner' field is populated with 'eslee3209' and has a dropdown arrow. The 'Repository name' field is empty. Below these fields, there is a suggestion: 'Great repository names are short and memorable. Need inspiration? How about **crispy-winner**?'. Underneath is a 'Description (optional)' text area. Further down, there are two radio button options for repository visibility: 'Public' (selected) and 'Private'. The 'Public' option is described as 'Anyone on the internet can see this repository. You choose who can commit.' The 'Private' option is described as 'You choose who can see and commit to this repository.' At the bottom, there is a section titled 'Initialize this repository with:' which includes a checkbox labeled 'Add a README file'. Below this checkbox, it says 'This is where you can write a long description for your project. [Learn more.](#)'.

# GitHub 원격저장소 생성 상세옵션

- Add .gitignore
  - .gitignore 파일을 추가함
  - 작업할 때 굳이 github에 올릴 필요가 없는 파일이 있음
  - 예를 들어, 텍스트 에디터에서 자동으로 생성된 설정 파일이나, 보안 비밀번호여서 오픈소스로 올리면 큰일나는 파일 등
  - 이 옵션에서 선택한 항목에 따라 해당 프로젝트에서 github에 올리지 않기를 바라는 파일이 자동으로 목록에 추가됨

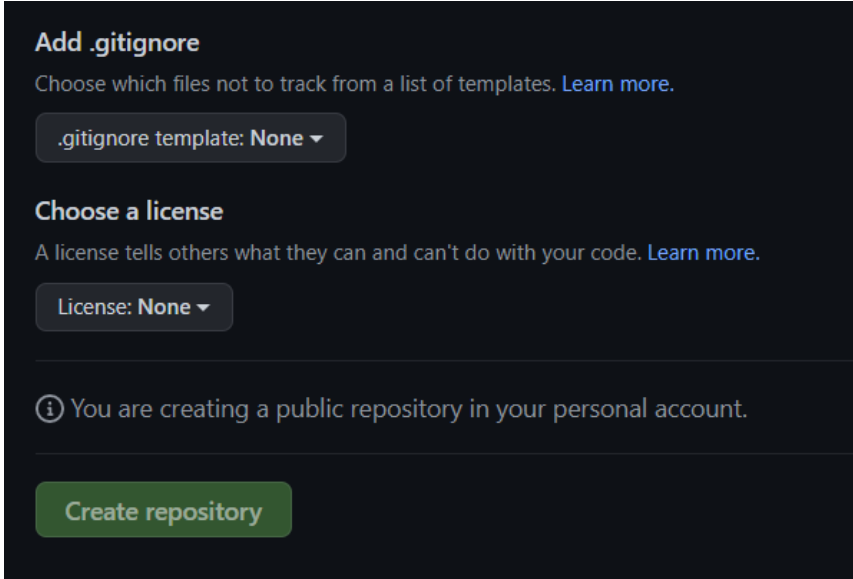


The screenshot shows the GitHub repository creation interface. It features two main sections: 'Add .gitignore' and 'Choose a license'. The 'Add .gitignore' section includes a dropdown menu currently set to '.gitignore template: None'. The 'Choose a license' section includes a dropdown menu currently set to 'License: None'. Below these sections, there is an informational message: 'You are creating a public repository in your personal account.' At the bottom, there is a green button labeled 'Create repository'.



# GitHub 원격저장소 생성 상세옵션

- Add a license
  - 라이선스 파일을 추가하는 것임
  - 공개적으로 사용하고, 다른 사용자도 참여하도록 만들어진 오픈 소스에도 지식재산권을 부여할 수 있음



The screenshot shows the GitHub repository creation interface with a dark theme. It features two sections: 'Add .gitignore' and 'Choose a license'. The first section has a dropdown menu for '.gitignore template' currently set to 'None'. The second section has a dropdown menu for 'License' also set to 'None'. Below these is an informational message with an icon stating 'You are creating a public repository in your personal account.' At the bottom is a green 'Create repository' button.

**Add .gitignore**  
Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None ▾

**Choose a license**  
A license tells others what they can and can't do with your code. [Learn more.](#)

License: None ▾

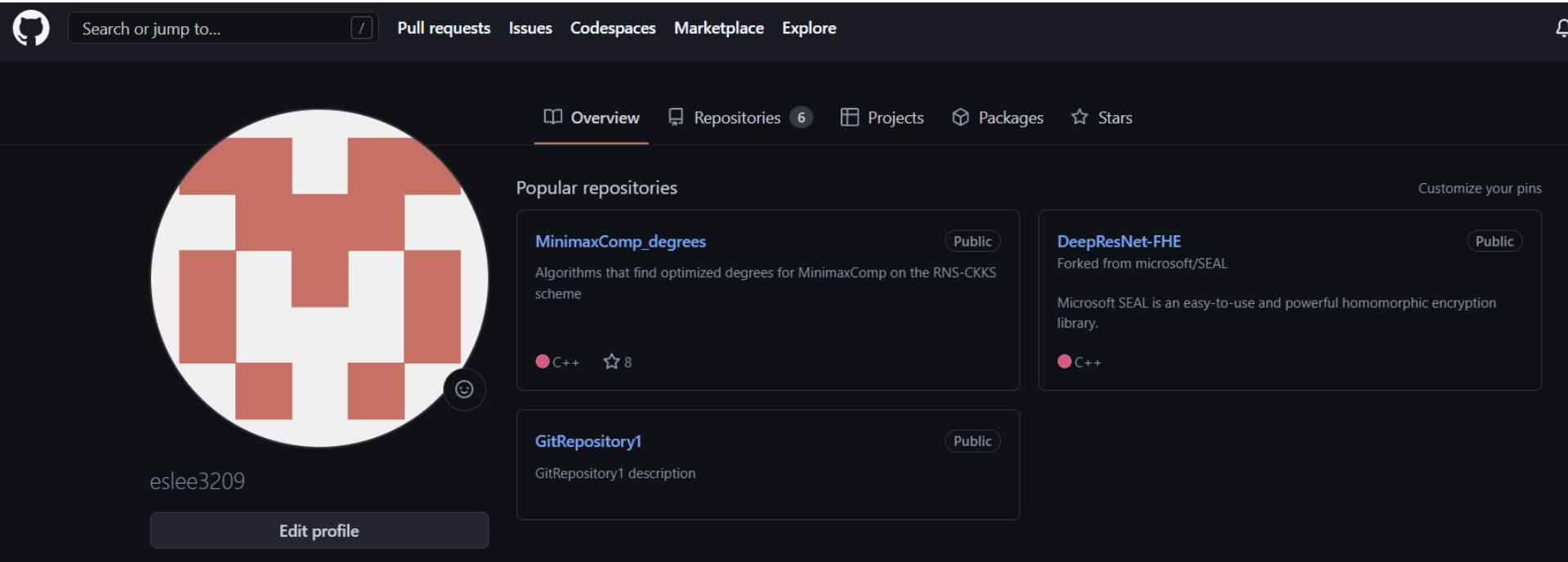
ⓘ You are creating a public repository in your personal account.

Create repository

# Github 특징

- Github는 단순히 소스코드를 올리고 협업하는 것 이상으로 마치 개발자들이 SNS처럼 사용할 수 있음
- 마음에 드는 저장소에 별(Star)로 호감을 표시하고, 요즘 떠오르는 오픈소스 저장소를 Explore 탭에서 훑어볼 수 있음
- 내가 좋아하는 서비스를 만든 엔지니어를 팔로우할 수 있음
- 회사에 지원할 때 면접관이 내 github 계정을 보며 내가 어떤 개발 활동을 하는지 볼 수 있음
- 꾸준히 github를 사용해서 내 코드 관리 및 오픈 소스 활동을 해왔다면 그 자체로 의미있는 포트폴리오가 됨

# Github 특징



The screenshot shows the GitHub profile of user 'eslee3209'. The profile picture is a circular avatar with a red and white pixelated pattern. Below the avatar is the username 'eslee3209' and an 'Edit profile' button. The navigation bar at the top includes 'Pull requests', 'Issues', 'Codespaces', 'Marketplace', and 'Explore'. The repository tabs show 'Overview' (selected), 'Repositories' (6), 'Projects', 'Packages', and 'Stars'. The 'Popular repositories' section lists three repositories: 'MinimaxComp\_degrees' (C++, 8 stars), 'DeepResNet-FHE' (C++, forked from microsoft/SEAL), and 'GitRepository1' (C++).

Search or jump to... / Pull requests Issues Codespaces Marketplace Explore

Overview Repositories 6 Projects Packages Stars

Popular repositories Customize your pins

**MinimaxComp\_degrees** Public  
Algorithms that find optimized degrees for MinimaxComp on the RNS-CKKS scheme  
C++ ☆ 8

**DeepResNet-FHE** Public  
Forked from microsoft/SEAL  
Microsoft SEAL is an easy-to-use and powerful homomorphic encryption library.  
C++

**GitRepository1** Public  
GitRepository1 description

eslee3209  
Edit profile