Introduction to Visual Studio Code

https://github.com/Whitford/ctbp-techtalks

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VS Code - Visual Studio Code

Visual Studio Code is a source code editor that can be used with a variety of programming languages, including C, C#, C++, Fortran, Go, Java, JavaScript, Node.js, Python, Rust, Julia, and more.

- No. 1 – Dev tool since 2018 – Stack Overflow
- Open-Source Software

Microsoft

VS Code – Pros vs Cons

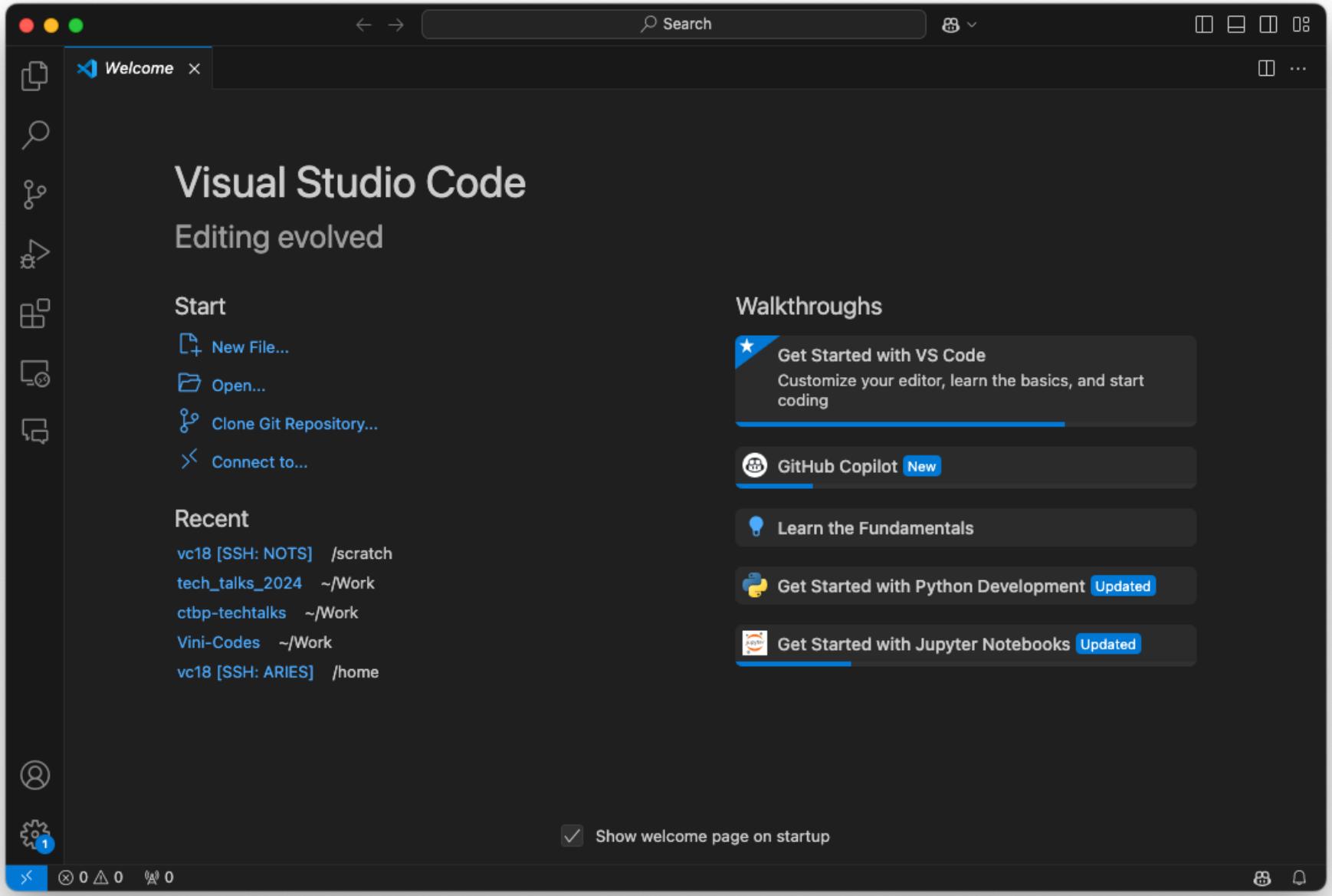
PROS

- Lightweight – Multi-Platform
- Extensions – Customizable
  - Integrated with Git
  - Remote access – SSH
  - Built-in Terminal
- Jupyter Notebook

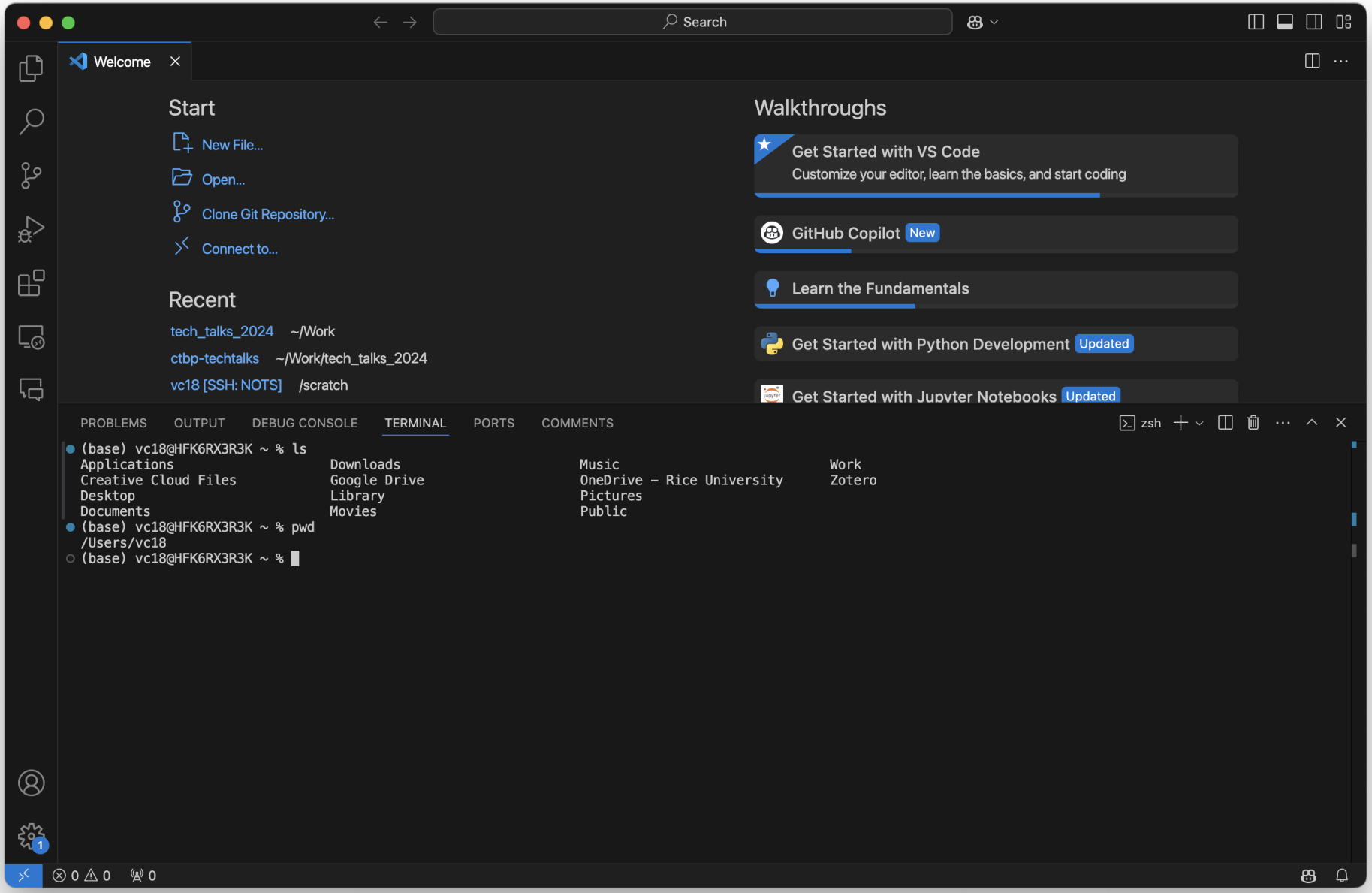
CONS

- Learning Curve
- Dependency on Extensions
- Not a full IDE (Integrated Development Environment)

Interface


Search
Welcome
Visual Studio Code
Editing evolved
Start
New File...
Open...
Clone Git Repository...
Connect to...
Recent
vc18 [SSH: NOTS] /scratch
tech_talks_2024 ~/Work
ctbp-techtalks ~/Work
Vini-Codes ~/Work
vc18 [SSH: ARIES] /home
Walkthroughs
Get Started with VS Code
Customize your editor, learn the basics, and start coding
GitHub Copilot New
Learn the Fundamentals
Get Started with Python Development Updated
Get Started with Jupyter Notebooks Updated
Show welcome page on startup

Terminal


Search
Welcome
Start
New File...
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Clone Git Repository...
Connect to...
Recent
tech_talks_2024 ~/Work
ctbp-techtalks ~/Work/tech_talks_2024
vc18 [SSH: NOTS] /scratch
Walkthroughs
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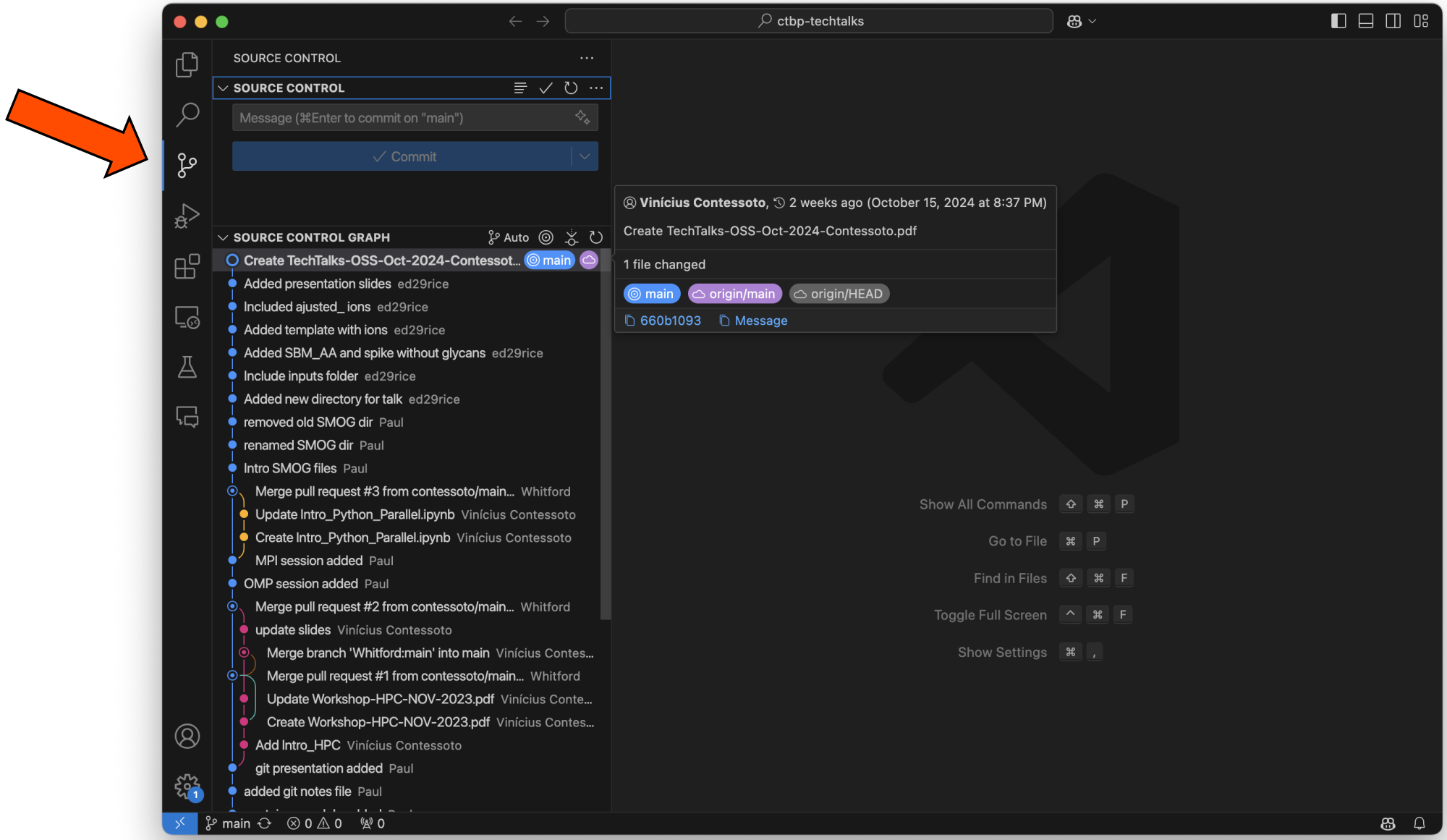
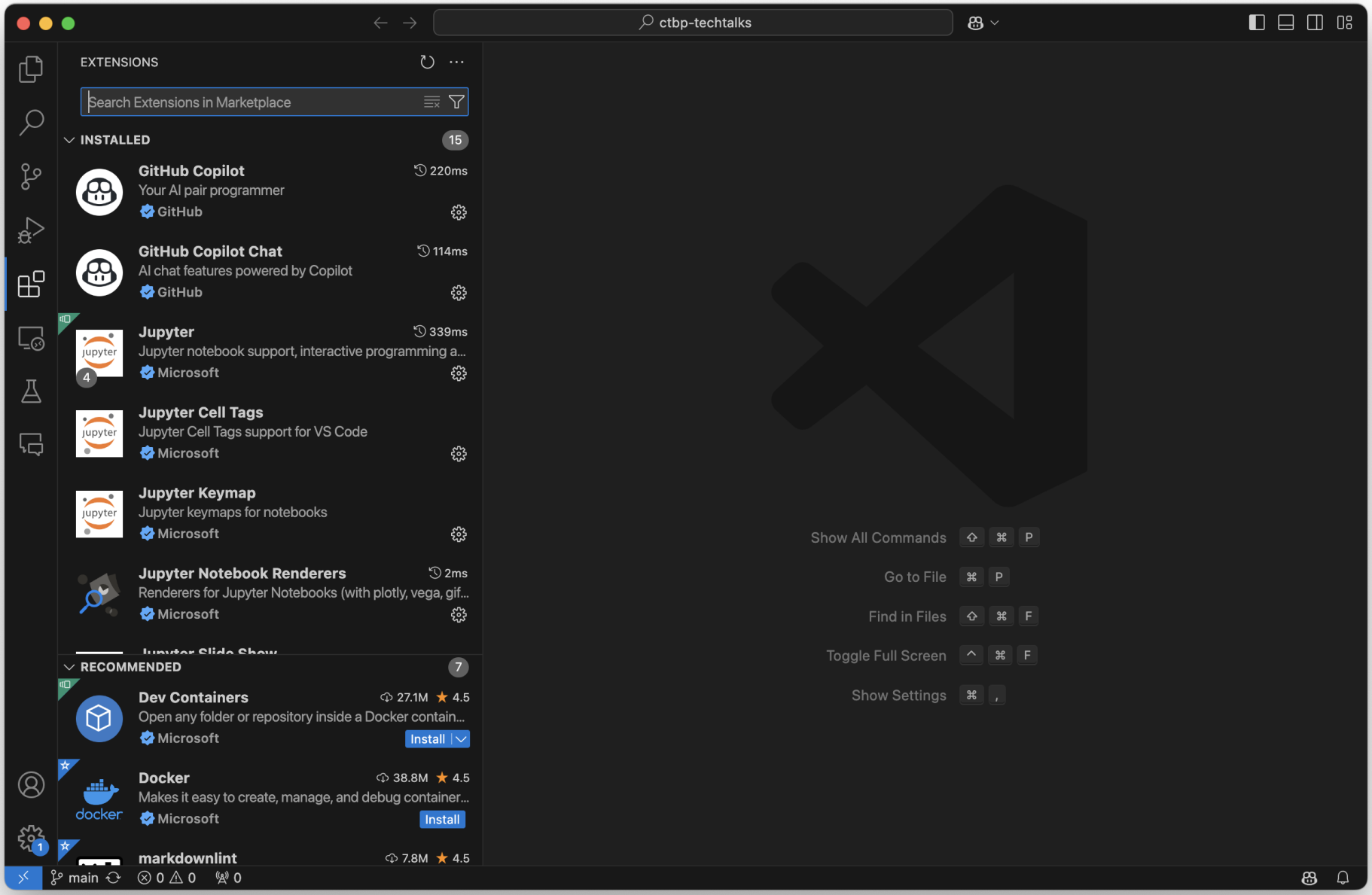
Learn the Fundamentals
Get Started with Python Development Updated
Get Started with Jupyter Notebooks Updated
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
zsh
(base) vc18@HFK6RX3R3K ~ % ls
Applications Downloads Music Work
Creative Cloud Files Google Drive OneDrive - Rice University Zotero
Desktop Library Pictures
Documents Movies Public
(base) vc18@HFK6RX3R3K ~ % pwd
/Users/vc18
(base) vc18@HFK6RX3R3K ~ %

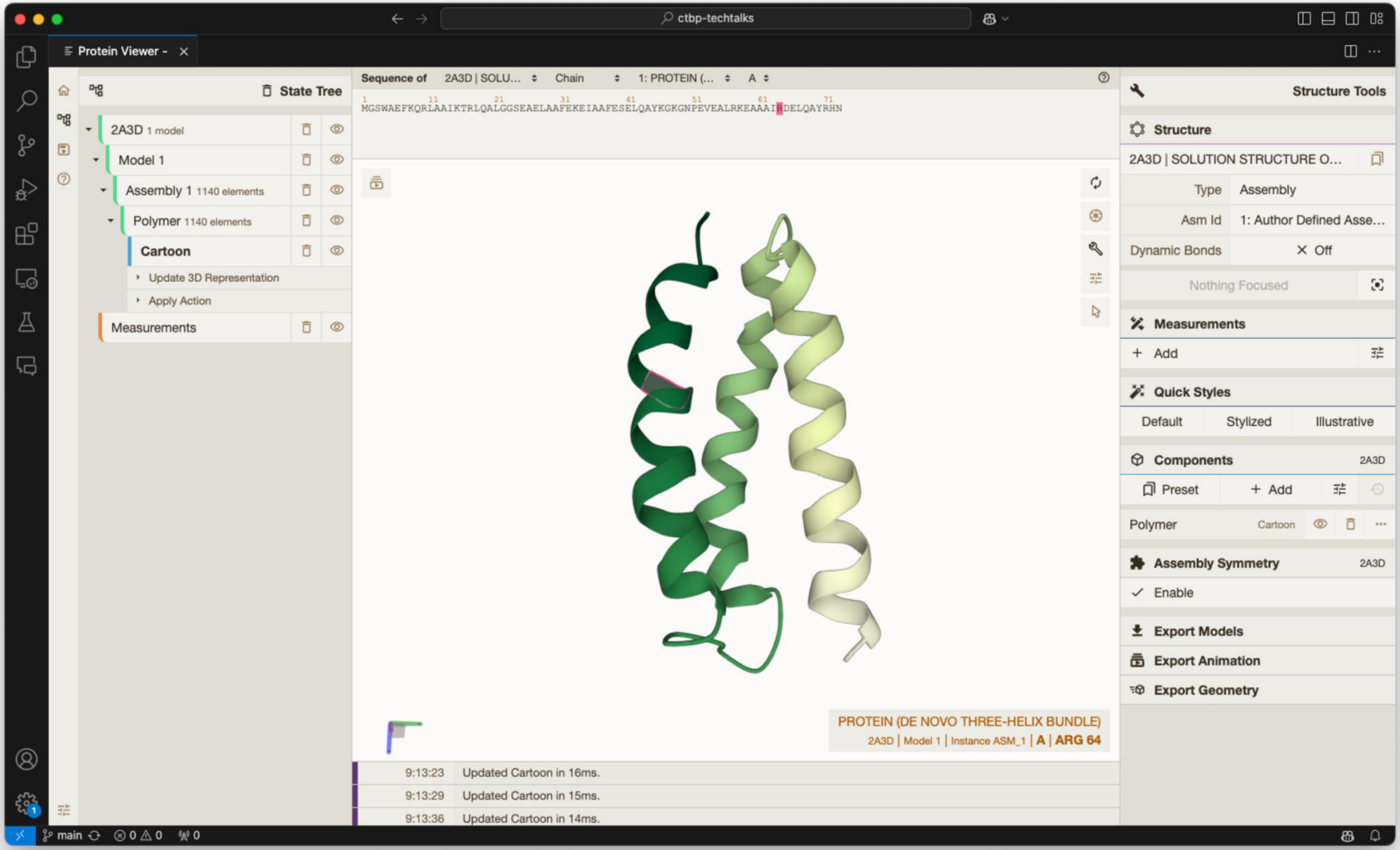
Git


ctbp-techtalks
SOURCE CONTROL
SOURCE CONTROL
Message (⌘Enter to commit on "main")
Commit
SOURCE CONTROL GRAPH
Auto
Create TechTalks-OSS-Oct-2024-Contessot... main
Added presentation slides ed29rice
Included ajusted_ ions ed29rice
Added template with ions ed29rice
Added SBM_AA and spike without glycans ed29rice
Include inputs folder ed29rice
Added new directory for talk ed29rice
removed old SMOG dir Paul
renamed SMOG dir Paul
Intro SMOG files Paul
Merge pull request #3 from contessoto/main... Whitford
Update Intro_Python_Parallel.ipynb Vinícius Contessoto
Create Intro_Python_Parallel.ipynb Vinícius Contessoto
MPI session added Paul
OMP session added Paul
Merge pull request #2 from contessoto/main... Whitford
update slides Vinícius Contessoto
Merge branch 'Whitford:main' into main Vinícius Contes...
Merge pull request #1 from contessoto/main... Whitford
Update Workshop-HPC-NOV-2023.pdf Vinícius Conte...
Create Workshop-HPC-NOV-2023.pdf Vinícius Contes...
Add Intro_HPC Vinícius Contessoto
git presentation added Paul
added git notes file Paul
Vinícius Contessoto, 2 weeks ago (October 15, 2024 at 8:37 PM)
Create TechTalks-OSS-Oct-2024-Contessoto.pdf
1 file changed
main
origin/main
origin/HEAD
660b1093
Message
Show All Commands ⇧ ⌘ P
Go to File ⌘ P
Find in Files ⇧ ⌘ F
Toggle Full Screen ^ ⌘ F
Show Settings ⌘ ,
main
0 0
0

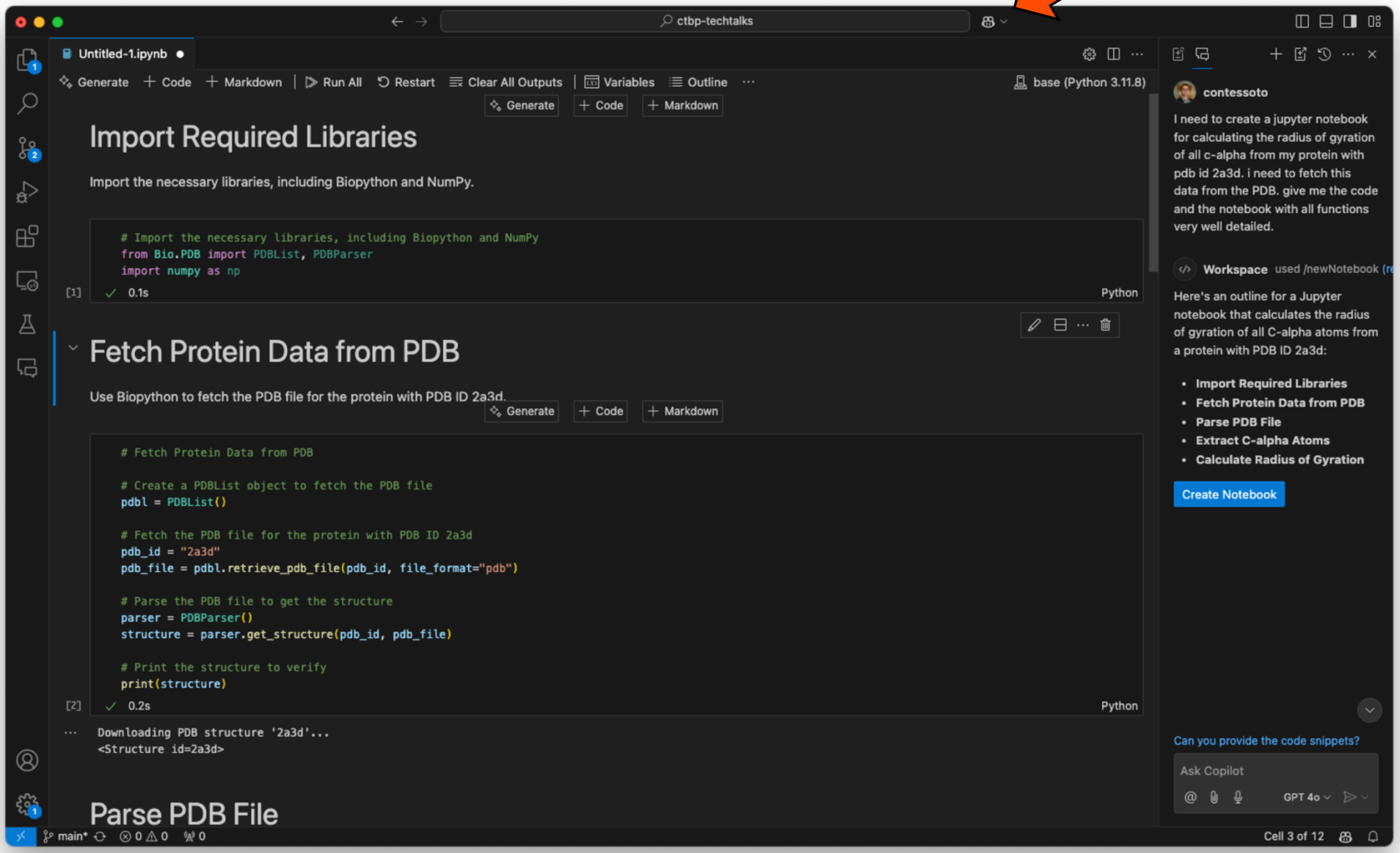
Extensions


ctbp-techtalks
EXTENSIONS
Search Extensions in Marketplace
INSTALLED 15
GitHub Copilot 220ms
Your AI pair programmer
GitHub
GitHub Copilot Chat 114ms
AI chat features powered by Copilot
GitHub
Jupyter 339ms
Jupyter notebook support, interactive programming a...
Microsoft
Jupyter Cell Tags
Jupyter Cell Tags support for VS Code
Microsoft
Jupyter Keymap
Jupyter keymaps for notebooks
Microsoft
Jupyter Notebook Renderers 2ms
Renderers for Jupyter Notebooks (with plotly, vega, gif...
Microsoft
RECOMMENDED 7
Dev Containers 27.1M 4.5
Open any folder or repository inside a Docker contain...
Microsoft Install
Docker 38.8M 4.5
Makes it easy to create, manage, and debug container...
Microsoft Install
markdownlint 7.8M 4.5
Show All Commands
Go to File
Find in Files
Toggle Full Screen
Show Settings
main

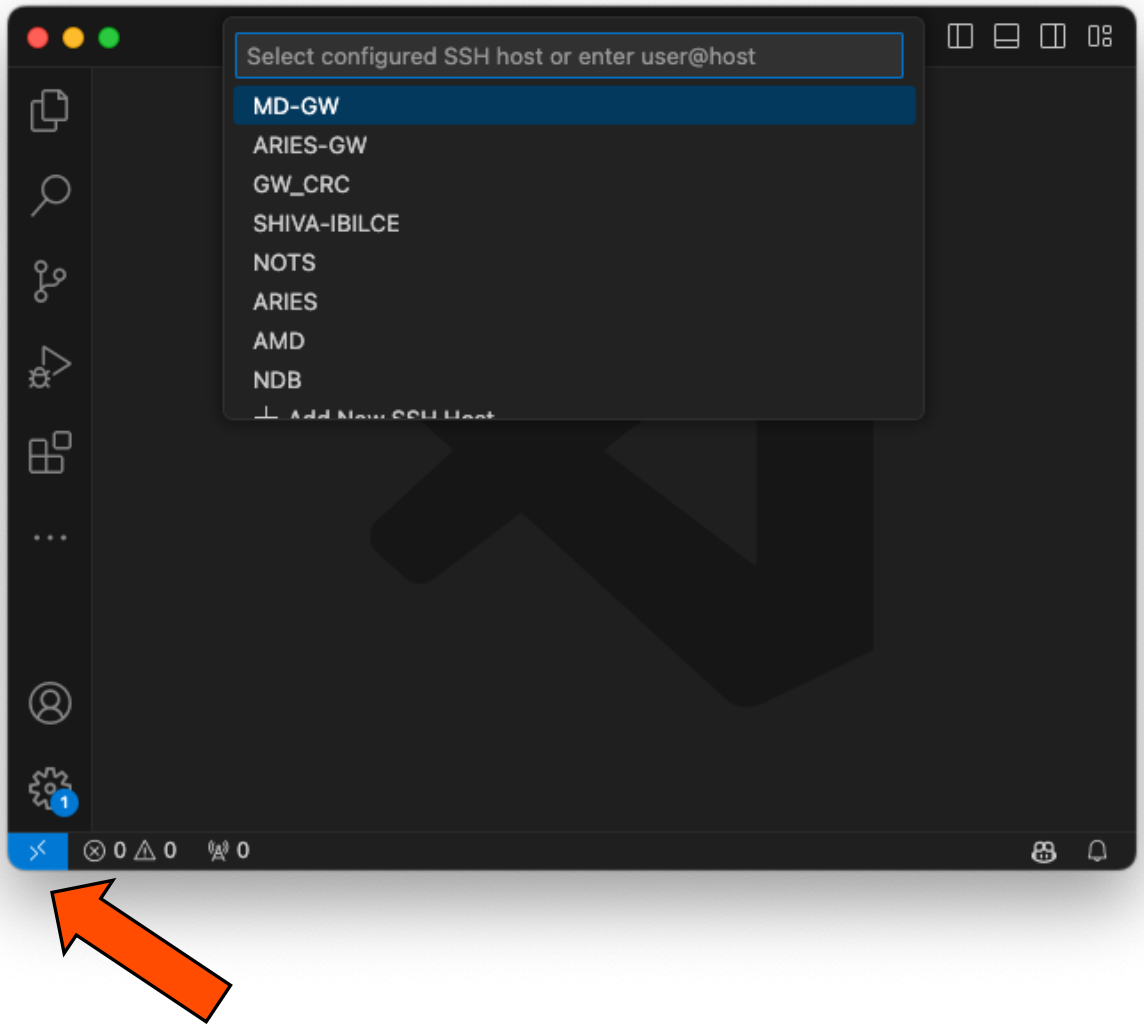
Protein Viewer

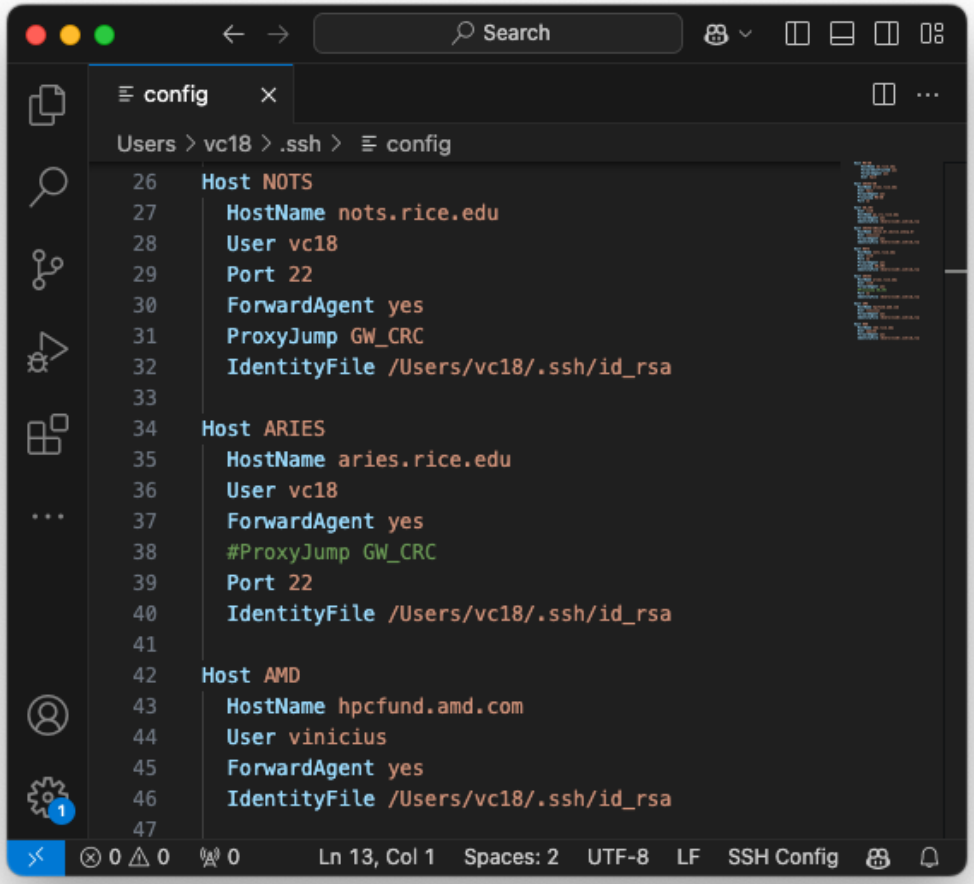


GitHub Copilot

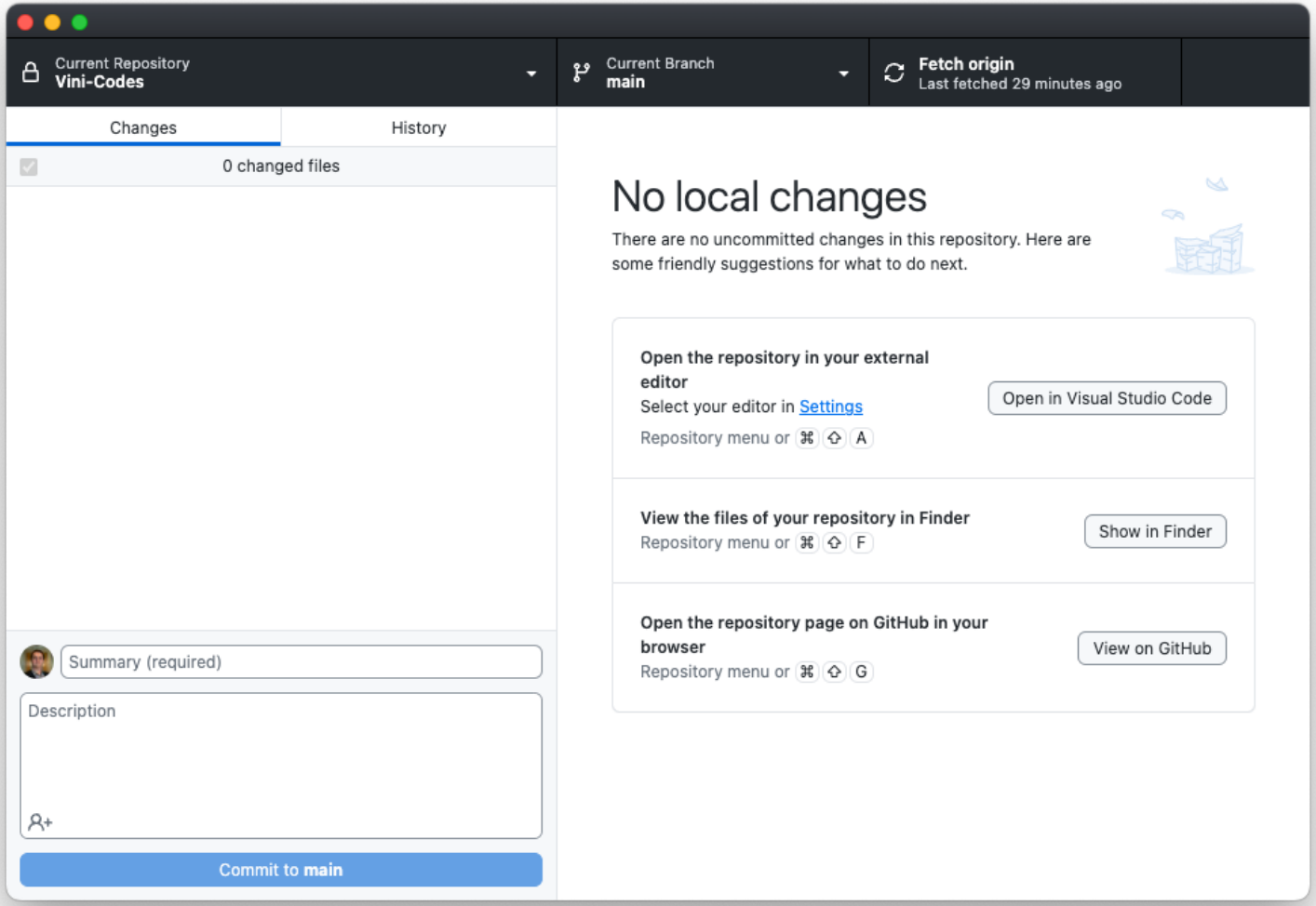


Remote SSH


Select configured SSH host or enter user@host
MD-GW
ARIES-GW
GW_CRC
SHIVA-IBILCE
NOTS
ARIES
AMD
NDB
0 0
0


Search
config
Users > vc18 > .ssh > config
26 Host NOTS
27 HostName nots.rice.edu
28 User vc18
29 Port 22
30 ForwardAgent yes
31 ProxyJump GW_CRC
32 IdentityFile /Users/vc18/.ssh/id_rsa
33
34 Host ARIES
35 HostName aries.rice.edu
36 User vc18
37 ForwardAgent yes
38 #ProxyJump GW_CRC
39 Port 22
40 IdentityFile /Users/vc18/.ssh/id_rsa
41
42 Host AMD
43 HostName hpcfund.amd.com
44 User vinicius
45 ForwardAgent yes
46 IdentityFile /Users/vc18/.ssh/id_rsa
47
0 0
0
Ln 13, Col 1
Spaces: 2
UTF-8
LF
SSH Config

GitHub Desktop



https://github.com/Whitford/ctbp-techtalks

CTBP – Resources & Useful links

- https://github.com/Whitford/ctbp-techtalks **(Tech Talks Slides and Files)**
- https://ctbp.rice.edu/ctbp-tech-talks **(Tech Talks Schedule)**
- https://kb.rice.edu/page.php?id=108237 (**NOTS**)
- https://wiki.rice.edu/confluence/display/CTBP/CTBP+Computing+Activities (**CTBP**)
- https://code.visualstudio.com (**VS Code**)
- https://github.com/apps/desktop (**GitHub Desktop**)