ELMED219-2022

Onsdag Jan. 5, 2022

Kursets plattformer: hva, hvordan og hvorfor?

Alexander S. Lundervold (HVL)

ELMED219

MITT UIB

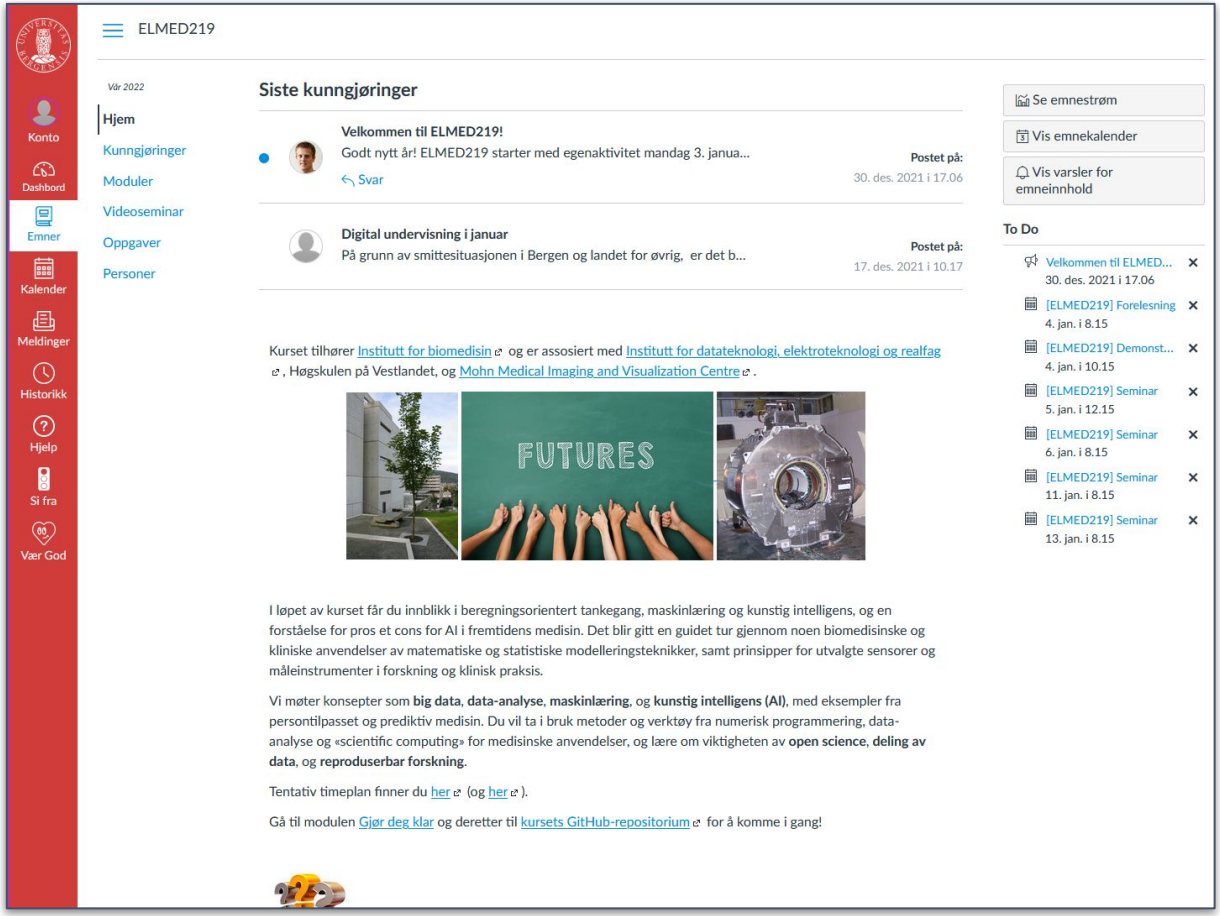
GitHub

DataCamp

DISCORD

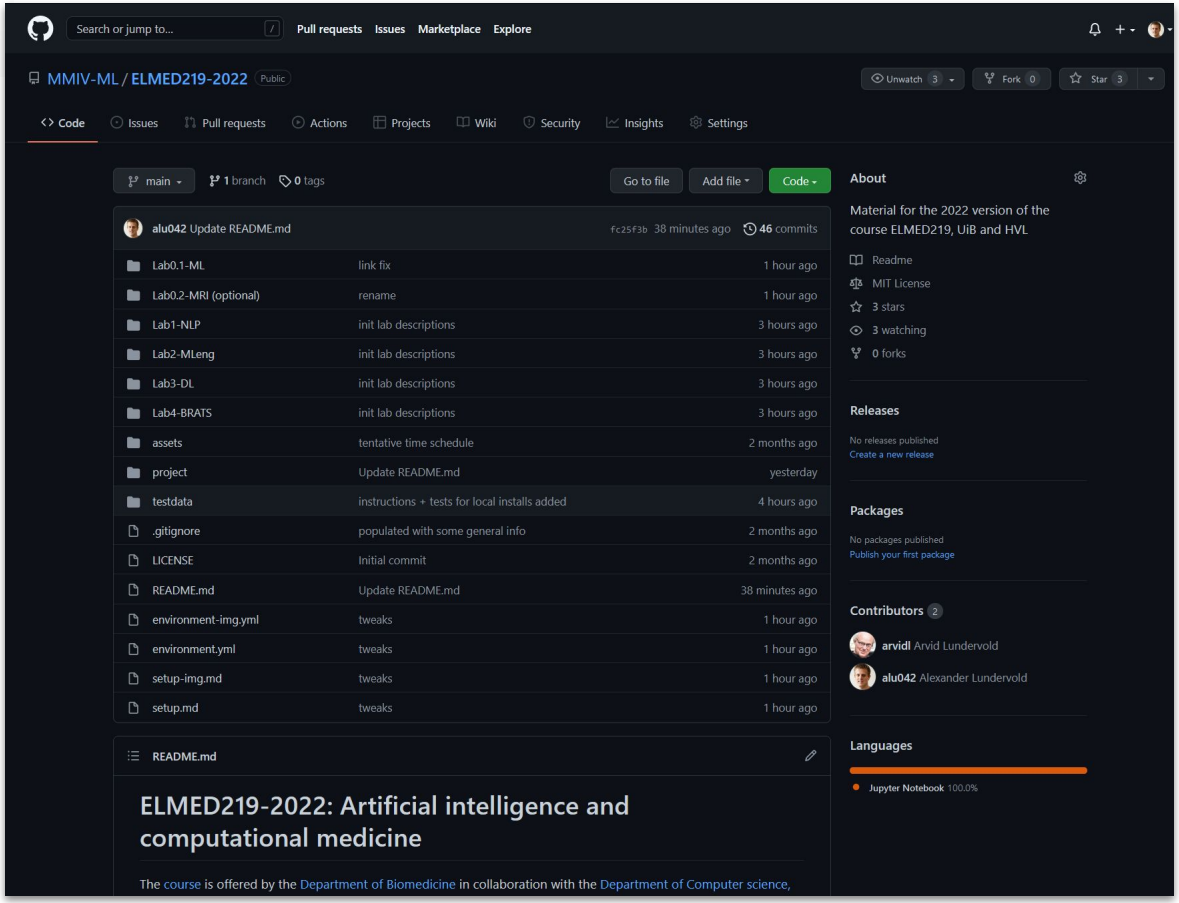
MITT UIB

https://mitt.uib.no/courses/33274



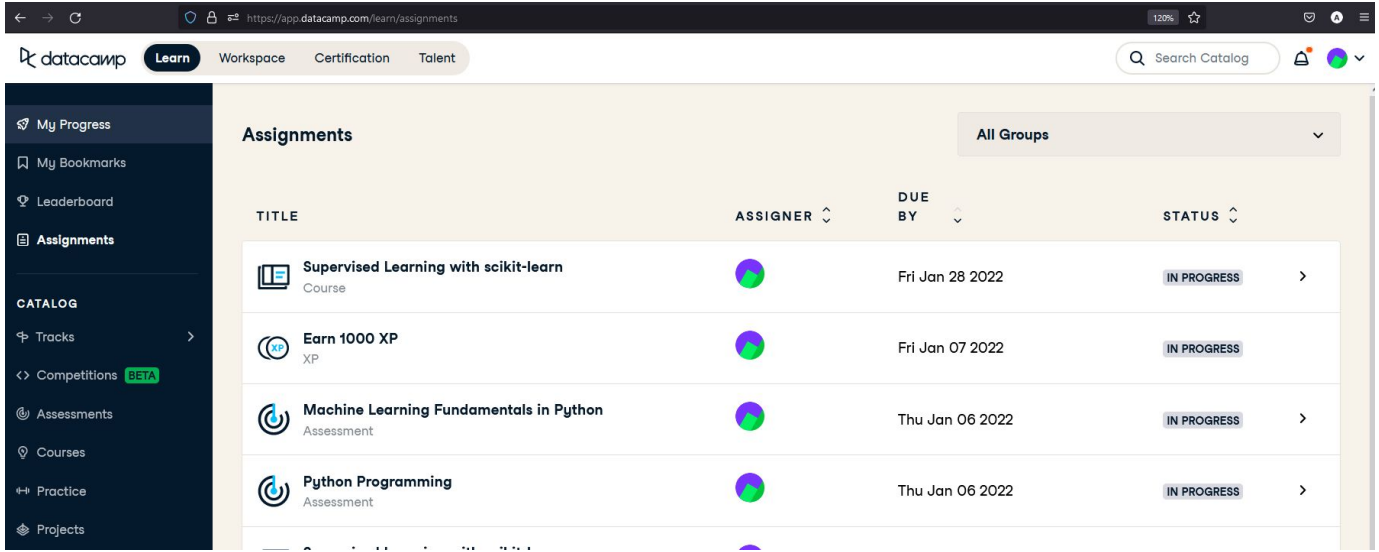
GitHub

https://github.com/MMIV-ML/ELMED219-2022

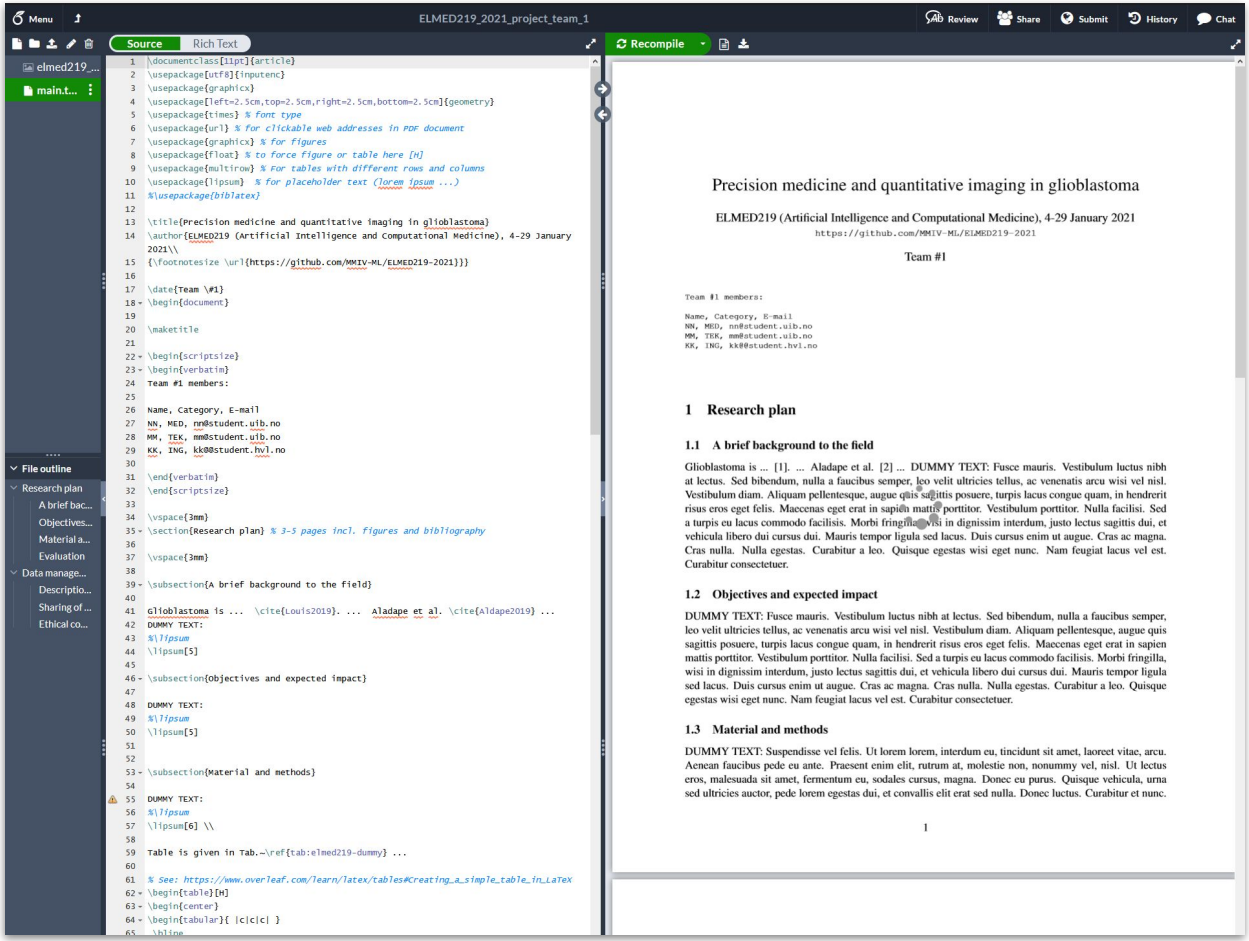


DataCamp

https://www.datacamp.com/groups/shared_links/62f2d2edf42c90f0b39871e67e498a5f760ffe4300ed70159d08ca6dff92217d

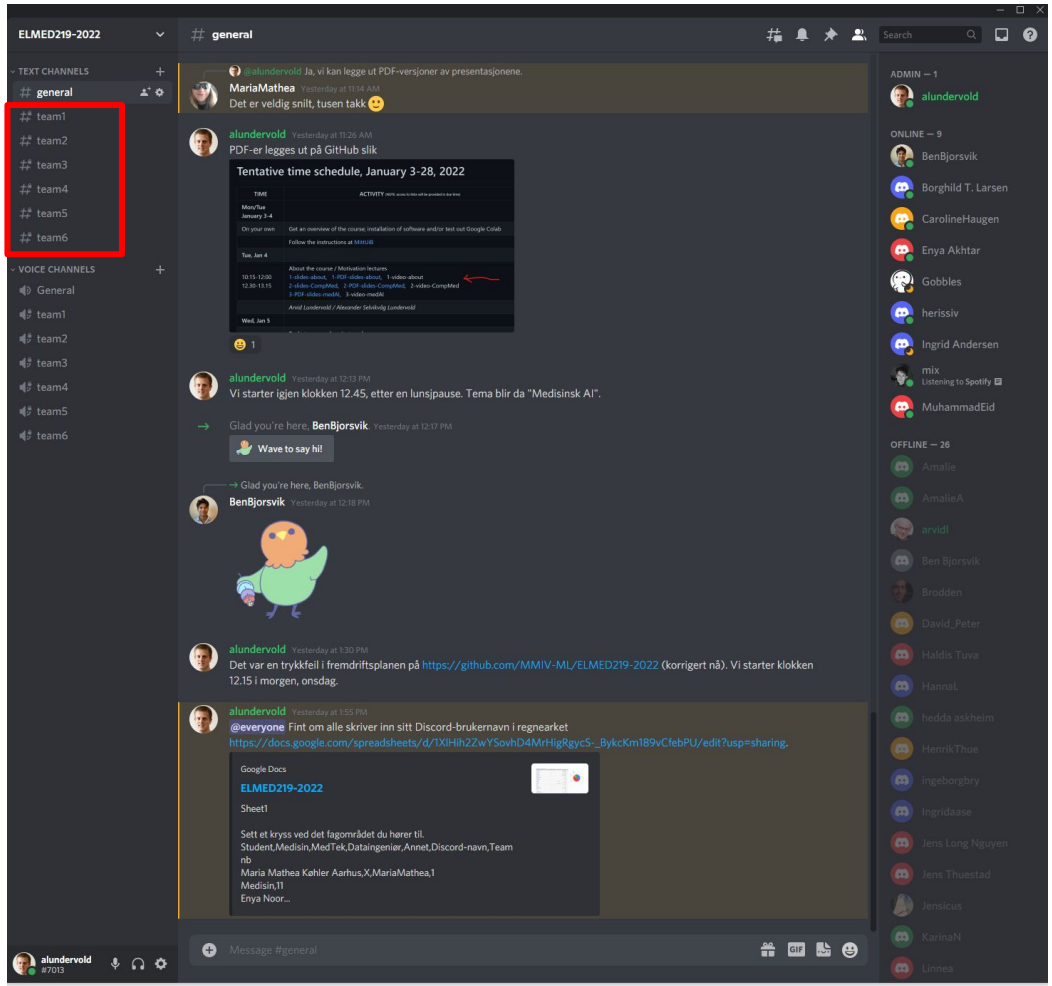


https://www.overleaf.com

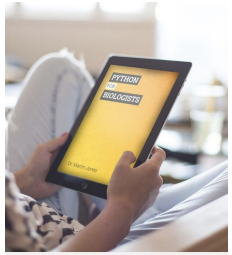


DISCORD

https://discord.gg/3DCbM8aW45



- Why Python ?



Programming for Biologists

Teaching biologists the tools they need to use computers to do cool science

http://www.programmingforbiologists.org/about/why-python

1) Easy to Learn and Use
2) Mature and Supportive Python Community
3) Support from Renowned Corporate Sponsors
4) Hundreds of Python Libraries and Frameworks
5) Versatility, Efficiency, Reliability, and Speed
6) Big data, Machine Learning and Cloud Computing
7) First-choice Language
8) The Flexibility of Python Language
9) Use of python in academics
10) Automation

https://www.upgrad.com/blog/reasons-why-python-popular-with-developers

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6920002

Journal List › J Med Libr Assoc › v.108(1); 2020 Jan › PMC6920002

JMLA Journal of the Medical Library Association — See also Bulletin of the Medical Library Association, v. 1–89

MANET | SUBSCRIBE | SUBMISSIONS

J Med Libr Assoc. 2020 Jan; 108(1): 29–35. PMCID: PMC6920002
Published online 2020 Jan 1. doi: 10.5195/jmla.2020.819 PMID: 31897049

Why do biomedical researchers learn to program? An exploratory investigation

Ariel Deardorff

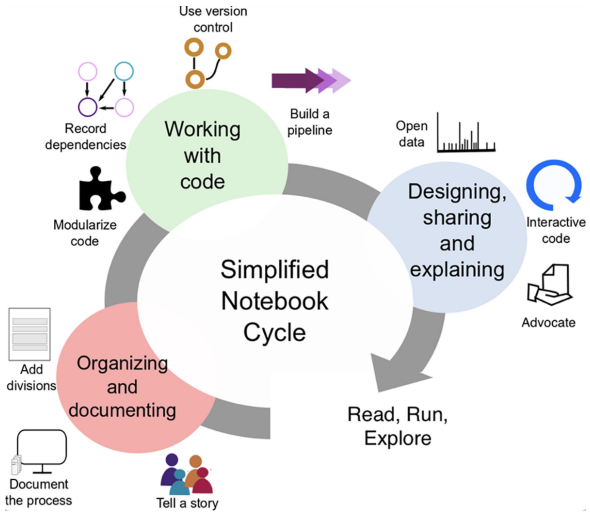
We use the Python language because it now pervades virtually every domain of the biosciences, from sequence-based bioinformatics and molecular evolution to phylogenomics, systems biology, structural biology, and beyond. [link]

- Why Jupyter notebooks ?

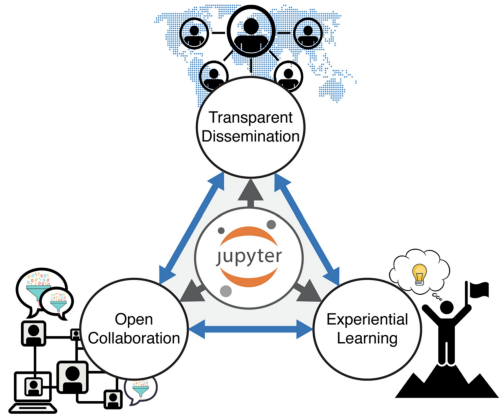
[link]

Interactive notebooks: Sharing the code

Jupyter notebooks provide an environment where you can freely combine human-readable narrative with computer-readable code.



Ten simple rules for writing and sharing computational analyses in Jupyter Notebooks [link]



… their interactive and easily deployable framework can drive experiential learning opportunities for computational novices to develop their own skills and better understand metabolomics data analysis [link]

- Why GitHub ?

Github is like facebook for programmers. Everyone's on there. You can look at what they're working on and easily peruse their code and make suggestions or changes.

It's really open source. "Open source" is not so open if you can't easily study it. With github, all of the code is easily inspected, as is its entire history.

Github lowers the barriers to collaboration. [link]