

AAE1001 - Introduction to Artificial Intelligence and Data Analytics in Aerospace and Aviation Engineering

Week 8 – What's GitHub?

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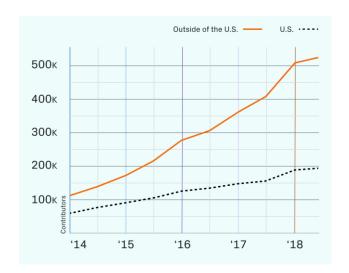
What is Github?

- A social network and platform for software developers
- Over 65 million users
- A place to Share,
 Communicate,
 Collaborate with others,
 especially programmers



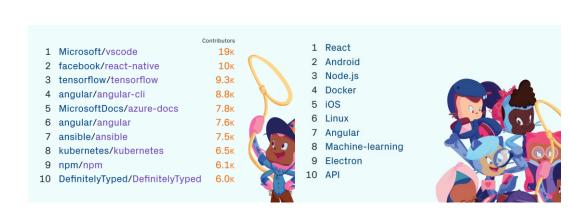
What's on GitHub

- Over 100 million live Projects
- New projects increasing over the years
- Showing the trend of using GitHub for Software development

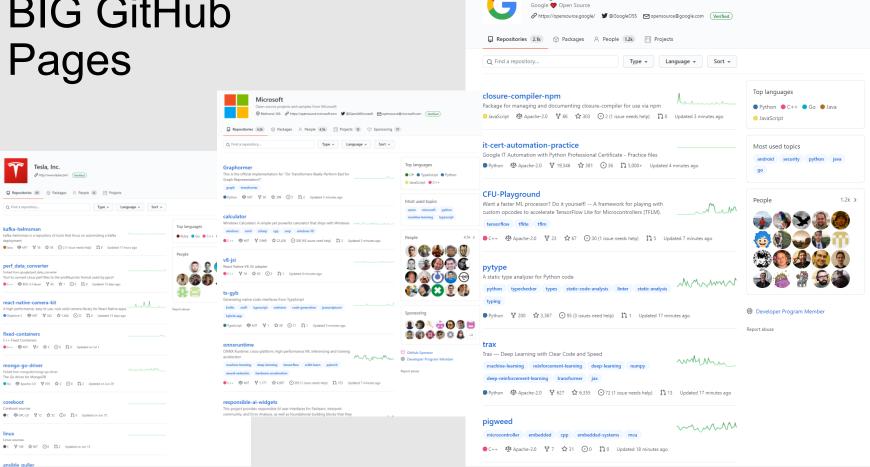


Variety of GitHub

- Countless topics and projects available for the public
- Encompassing most popular topics nowadays

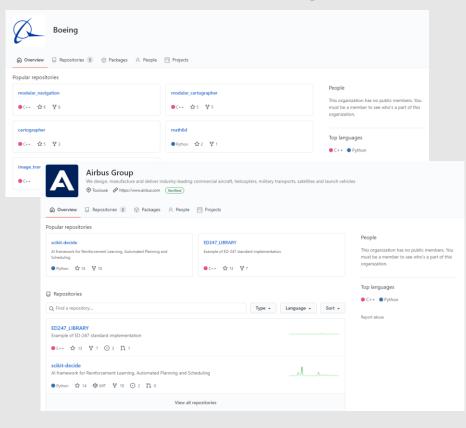


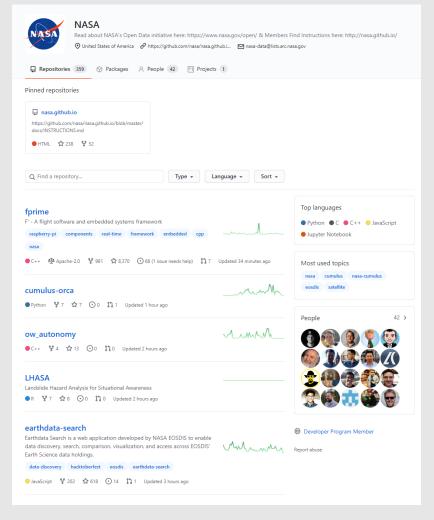
BIG GitHub



Google

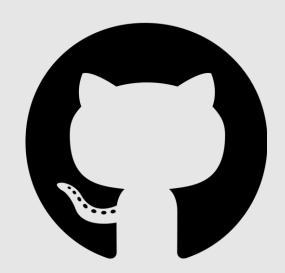
BIG GitHub Pages





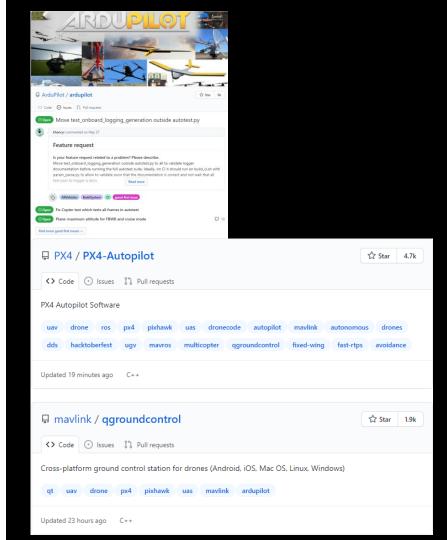
What's on GitHub?

How is it related to AAE?



Flight control softwares for UAV

Ardupilot, PX4 and more



About These Softwares

Ardupilot:

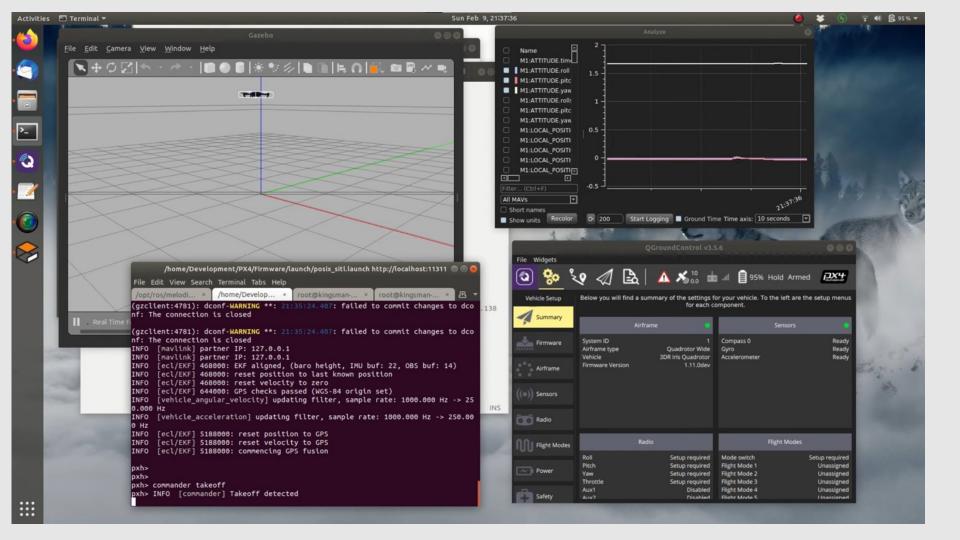
- Open source software suite
- Quadcopters, VTOL and more
- Cross platform
- Over 10 years of development and improvement



PX4:

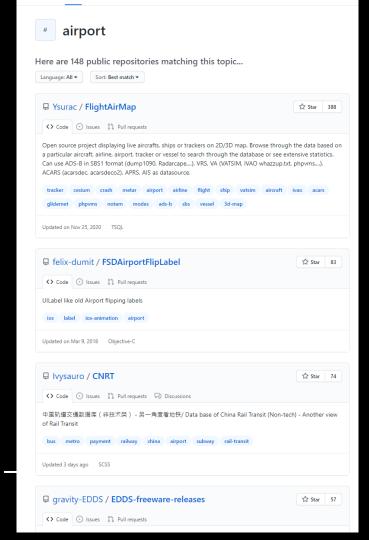
- Also open source
- Works with QGC and MAVLink (Also available in GitHub)





Aviation Services Engineering

Logistics and Facility
Management and more

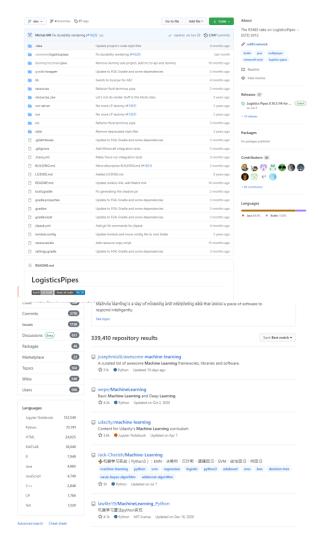


Logistics and Facility Management

- Data analysis resources
- System modelling and simulations
- Logistical models

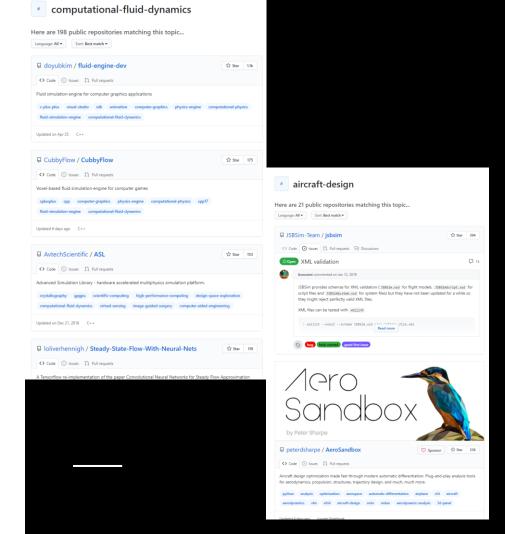
Machine learning for data analysis

- Faster analysis
- Potential extra self-learning for students
- Extremely beneficial to their careers



Aeronautical Engineering

Material, aircraft designs, CFD and more

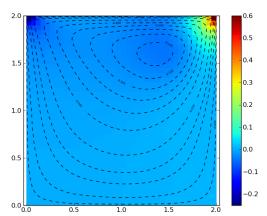


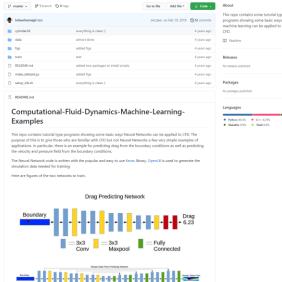
CFD Python

- Full course for CFD Python
- Course Materials (Lectures and videos)
- Software resources

CFD and Machine Learning

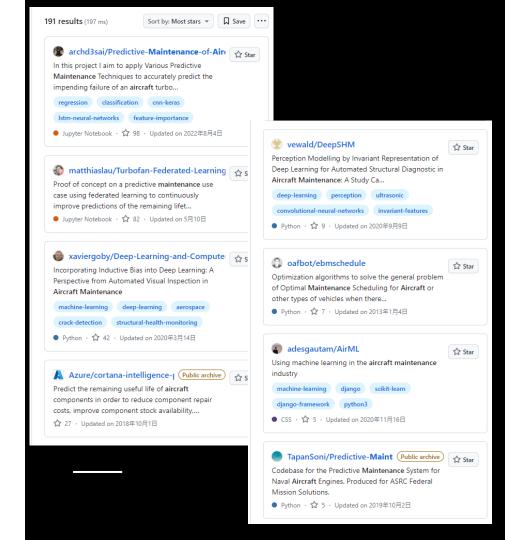
- Making use of ML
- Showing how neural networks can be applied to CFD





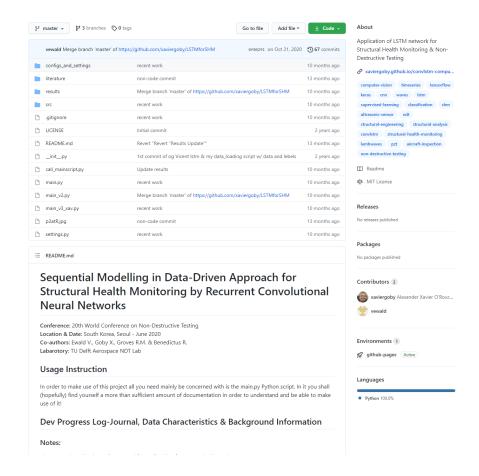
Aircraft Maintenance

Propulsion, NDT and more



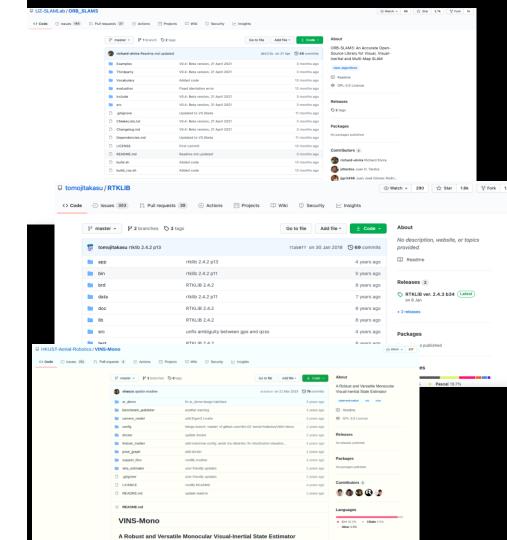
Example on NDT

- Resources on the whole conference
 - 20th World Conference on Non-Destructive Testing
- Documentation and software resources
- Applying LSTM to NDT



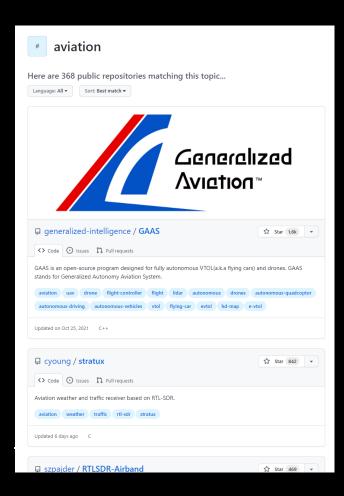
Navigation and Positioning

RTKLIB, VINS, ORB_SLAM3, ROS and more



Repository Examples

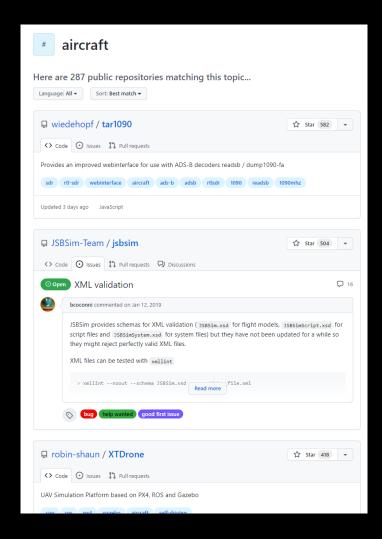
- UAV Powering Programmes
- Weather and Traffic Receiver
- Radio demodulator
- Proximity awareness systems
- Traffic visualization
- And more!!
- https://github.com/topics/aviation

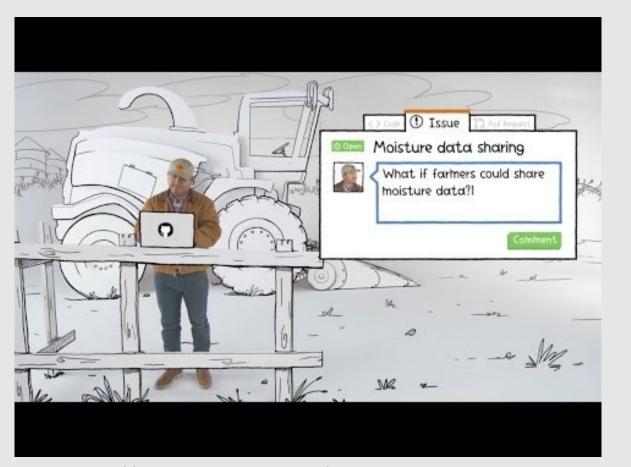


Other related Repositories

- UAV simulation platforms
- ADS-B Decoder
- Aircraft design optimization
- Aircraft design toolbox
- https://github.com/topics/aircraft

Explore in your free time and you might find out something interesting!



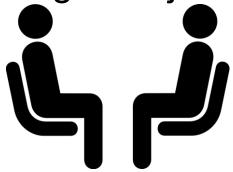


https://www.youtube.com/watch?v=w3jLJU7DT5E

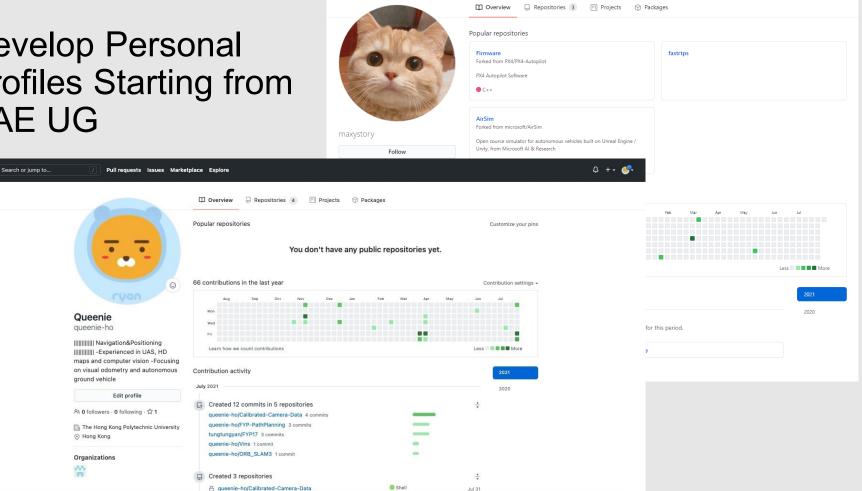
For Your Career

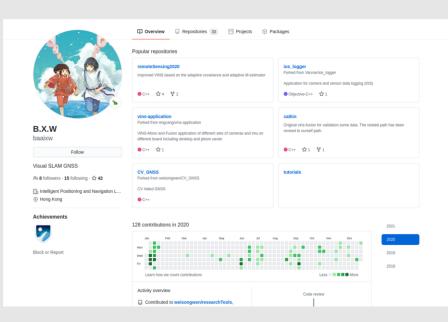
GitHub Facilitated Job Hunting

- A online digital profile for students
 - Indicating interests
 - Show past work
 - Roadmap of students' development career
- Let people know that you are looking for a job
- During job hunting
 - Better first impression
 - Better understanding
 - Appears more enthusiastic

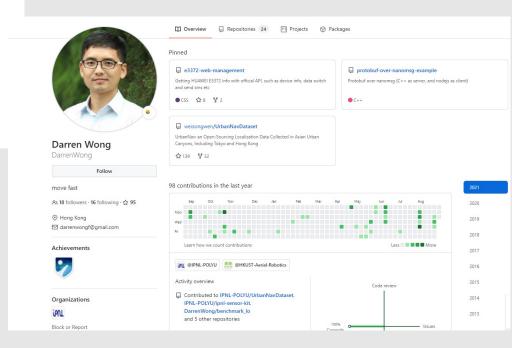


Develop Personal Profiles Starting from AAE UG





Up to Phd Studies





Seph Soliman scarlac

Follow

Tattoodo, Bitbucket, Konstellation. Software entrepreneur, developer and true full stack developer.

유 64 followers · 7 following · ☆ 71

- Tesla
- San Francisco
- ∂ https://www.seph.dk

Achievements

Organizations



Block or Report

Pinned

☐ is-stopwatch

Javascript Stopwatch class. Output can be controlled using a simple callback.

Overview Repositories 38 Projects Packages

JavaScript ☆ 24 ♥ 7

□ ClamshellOpen

App to allow running your laptop in clamshell mode with an open lid for Lion (10.7) and Mountain Lion (10.8)

Objective-C 🛱 5

☐ drag-check-js Library for checking multiple checkboxes by click-and-dragging over them, Paint your selection!

□ chargenow See DriveNow EVs in your area that needs charging. First react

● JavaScript ☆ 1

O JavaScript ☆ 21 💝 9

☐ d3d-strategy

Exam assignment to write a C# program. I chose to write a Direct 3D Strategy game. Graphics for this game was borrowed from C&C: Red Alert. For legal reasons, they are not included in the repository.

● C# ☆ 2

☐ lolpause

MacOS utility app to pause League of Legends GUI Flash client while game is activate to lower CPU consumption

Objective-C 12 1

44 contributions in 2021



Contribution activity

August 2021



Jonathan Hall flimzy

You can also find me on GitLab: https://gitlab.com/flimzy

Follow

 Amsterdam, NL @ https://jhall.io/

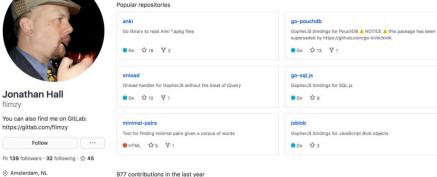
● @DevOpsHabits

Highlights

* Arctic Code Vault Contributor

Organizations



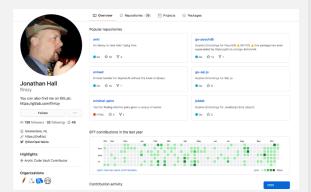


Less BBB More

Learn how we count contributions.

Contribution activity

Repositories 79 Projects Packages



Making GitHub Part of your Work

Now you have an empty GitHub profile. How do you make it shine?

The following tips are roughly organized according to effort. Practically anyone can implement at least some of them. The later suggestions will be more discretionary, depending on your interests and time.

Star interesting projects

Whenever you run across a GitHub project that piques your interest, "star" it. Your starred projects appear on your public profile, and if nothing else, they provide recruiters and hiring managers an indication of what sorts of projects you find interesting.

Follow interesting people

GitHub also allows you to follow interesting people, and these people will appear on your public profile, as well. In addition to signaling to the world whom you find interesting, when people you follow make contributions to their projects, you will

What Will You will Learn and Experience?



- Pull Request (Basic Features)
 - Allowing leaders to double check modifications done by teammates
- Code Synchronization (Version Control on Web, VS, MATLAB etc)
 - Ensuring everyone is working on the latest code version
- Self-learning using GitHub resources
- Look for interesting issues on GitHub