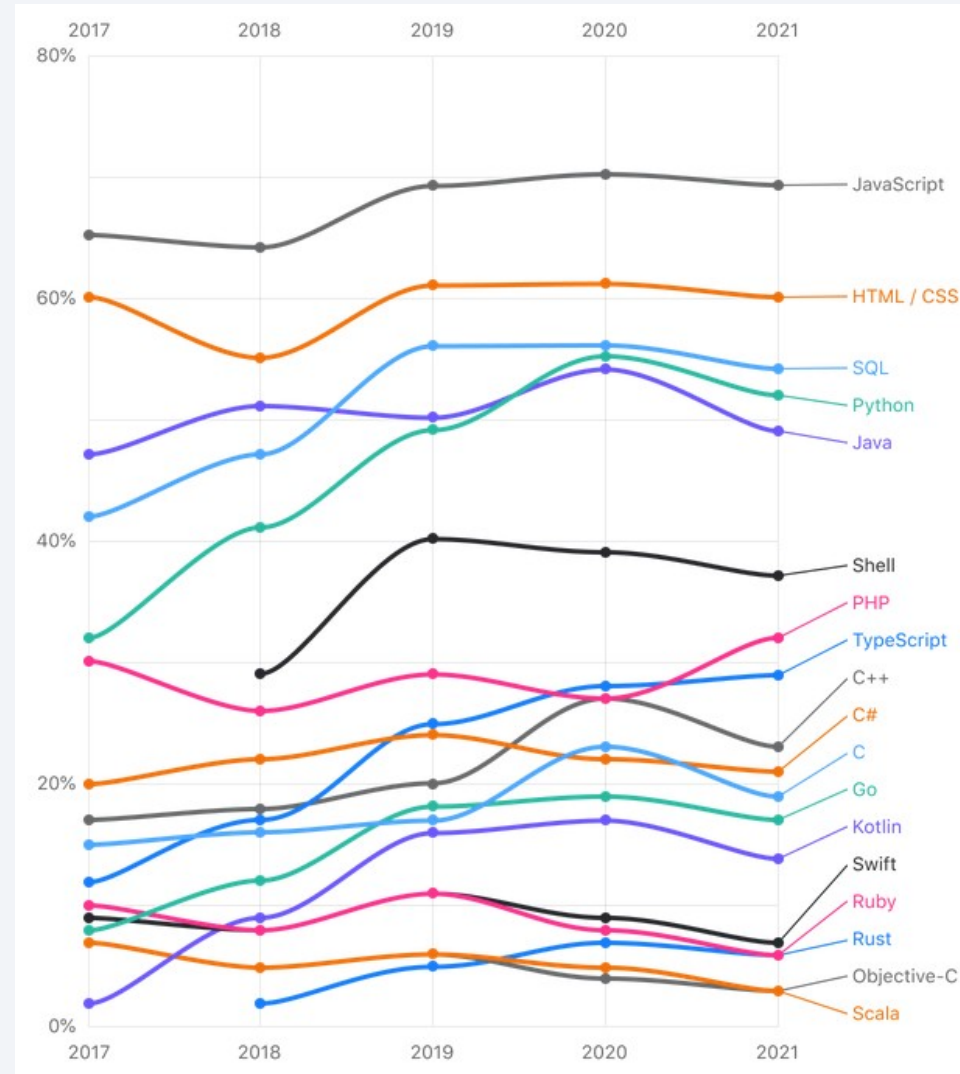




# Why Python?

# Popularity of programming languages over the last 5 years

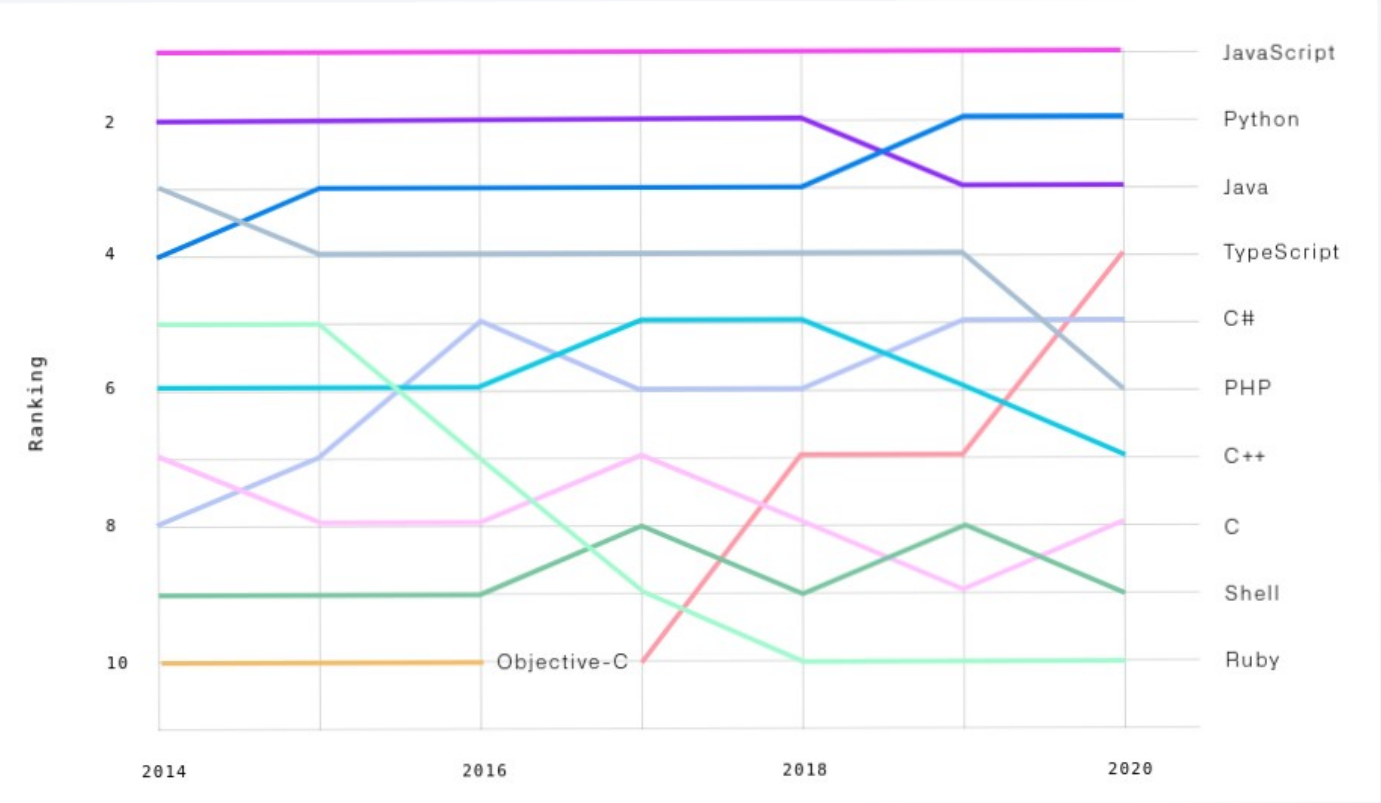
What programming languages have you used in the last 12 months?



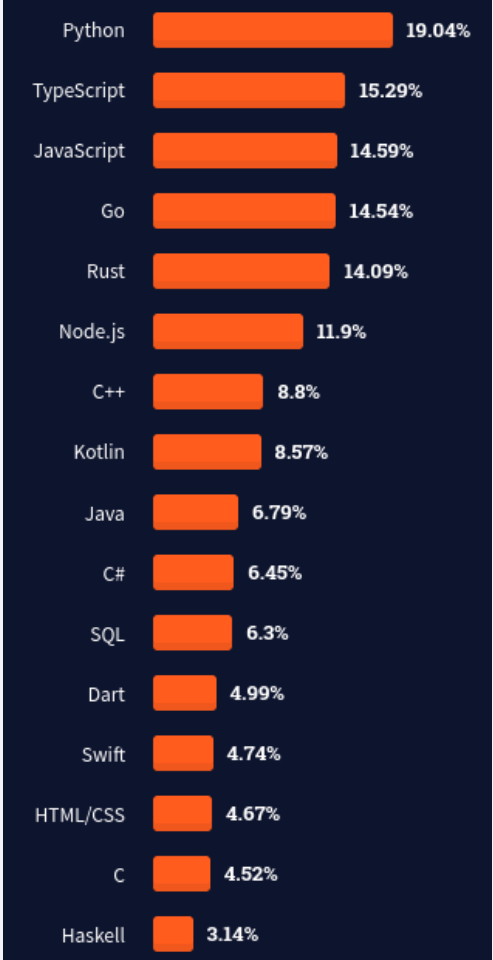
Source: The State of the Developer Ecosystem in 2021. JetBrains.

<https://www.jetbrains.com/lp/devecosystem-2021/>

# Python popularity



Source: State of the Octoverse 2020  
octoverse.github.com



% of developers who are not developing with the language or technology but have expressed interest in developing with it

Source: Stack Overflow Survey 2021  
insights.stackoverflow.com/survey/2021

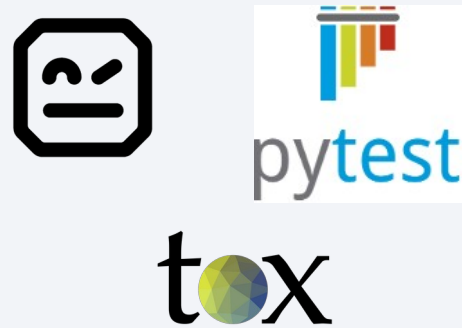
# The tools

# Tools of the trade

## Data engineering



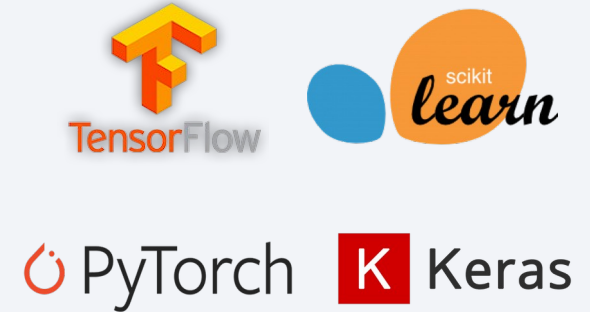
## Testing



## Web Dev



## ML/AI



## Back end



## SysAdmin



## Data Science



## Others

*Kivy,  
Pygame,  
Requests,  
Tkinter, etc.*

*The Atlantic*

SCIENCE

# THE SCIENTIFIC PAPER IS OBSOLETE

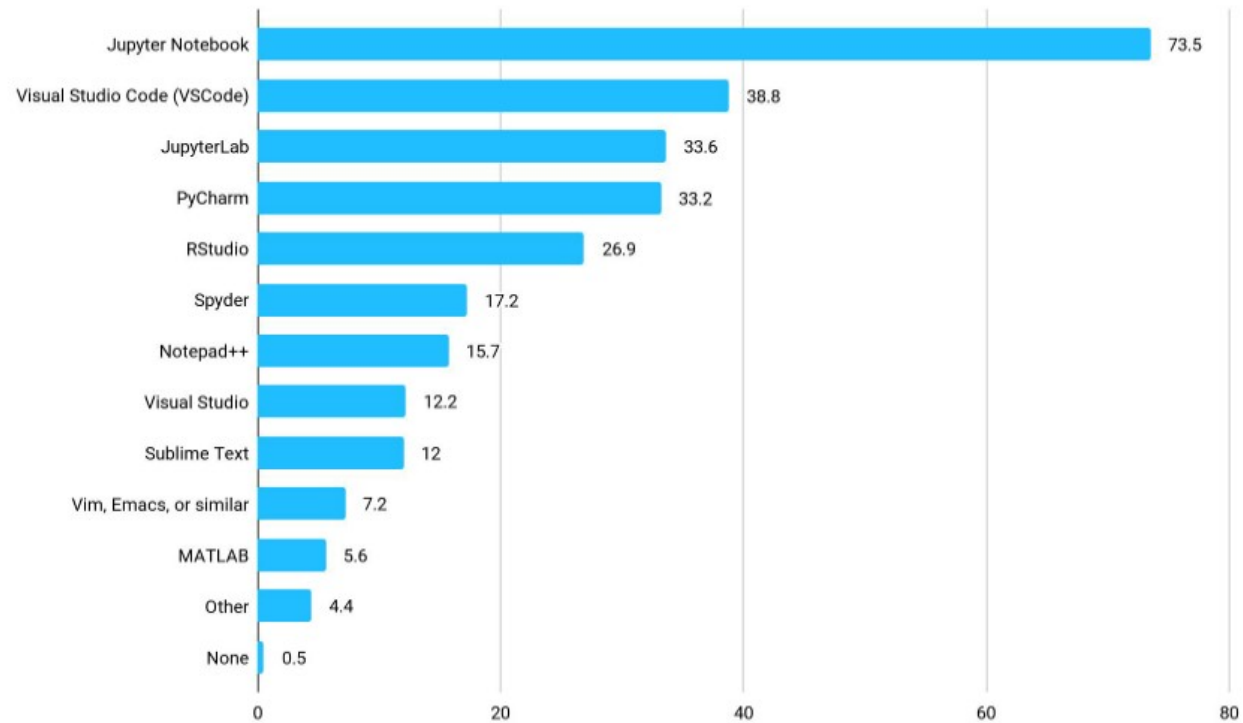
Here's what's next.

By James Somers

<https://www.theatlantic.com/science/archive/2018/04/the-scientific-paper-is-obsolete/556676/>



## IDE Popularity



*"Python-based tools continue to dominate the machine learning frameworks".*

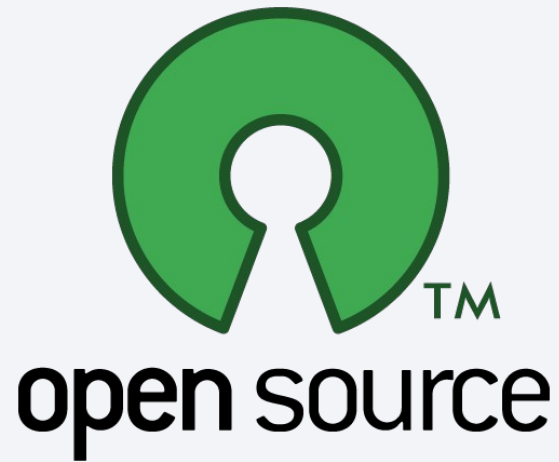
*Kaggle – State of ML and Data Science 2021*





# Recommendations

The future present is open

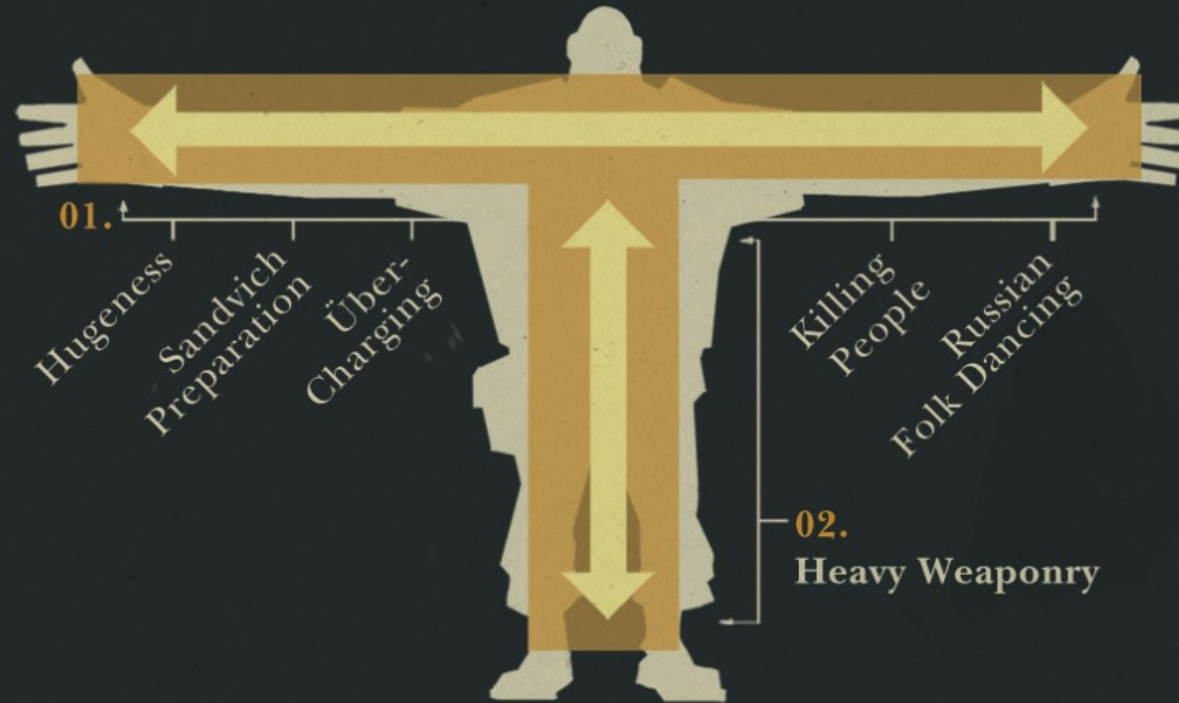


- Open a GitHub / GitLab / BitBucket account
- Learn what free and open *really* means
- Start a project
- Search for interesting projects
- Create, contribute, collaborate

**hacktober**  
20 **fest** 21

<https://hacktoberfest.digitalocean.com/>

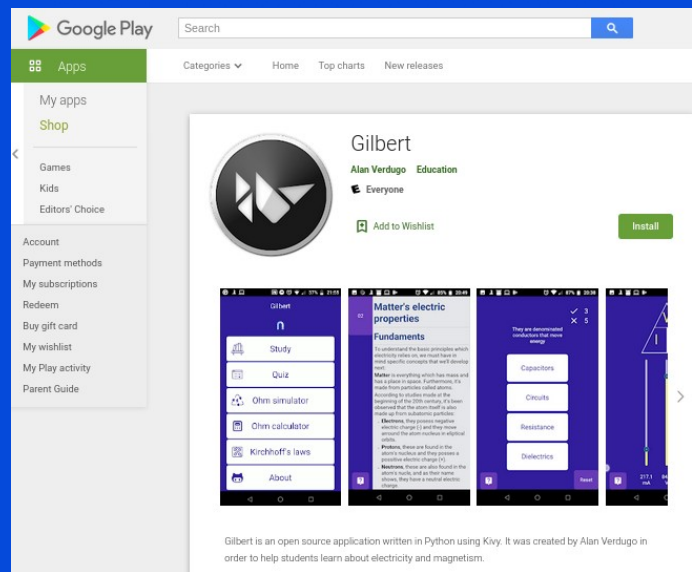
## T-SHAPED MODEL: EMPLOYEE



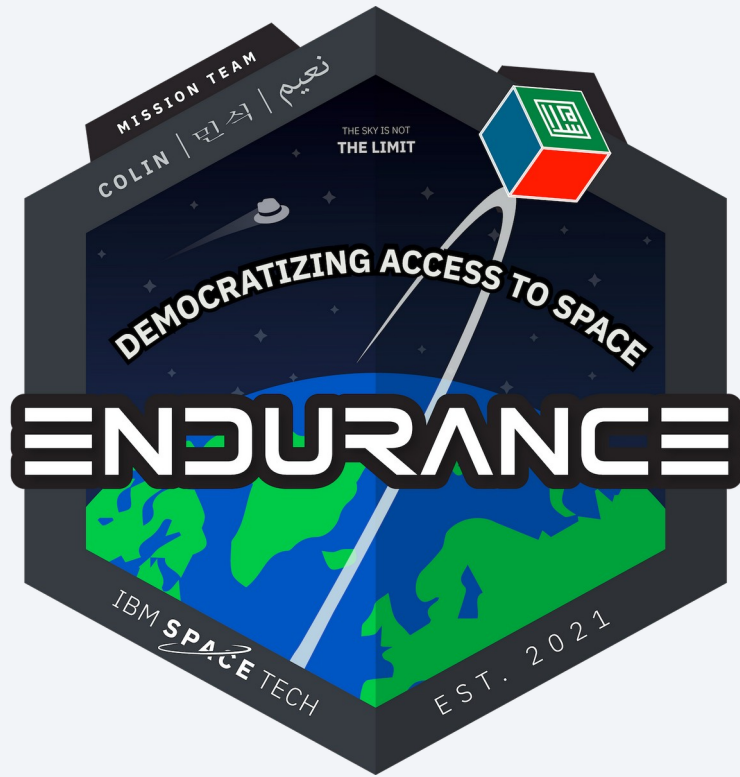
**01. Broad-range generalist**    **02. Deep expertise in one area**

# Bonus!

# Gilbert



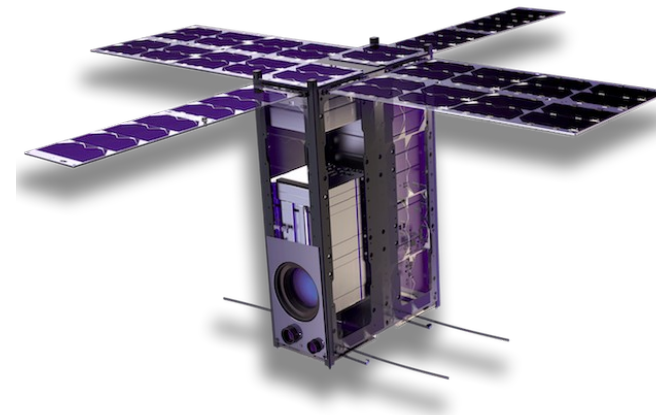
- Aplicación Open Source para aprendizaje de Electricidad y magnetismo
- Repositorio: <https://github.com/alanverdugo/gilbert>
- Play Store:  
<https://play.google.com/store/apps/details?id=net.kippel.gilbert>



- Leveraging IBM's Edge Computing in Space solution (Powered by Linux and the microshift project started by Red Hat), developers will be able to execute containerized code on the Cubesat as it orbits the Earth.
- The new era of space has just begun: Let us all work together to build the next frontier for innovation - Space!

# Endurance mission

The Sky Is Not The Limit!

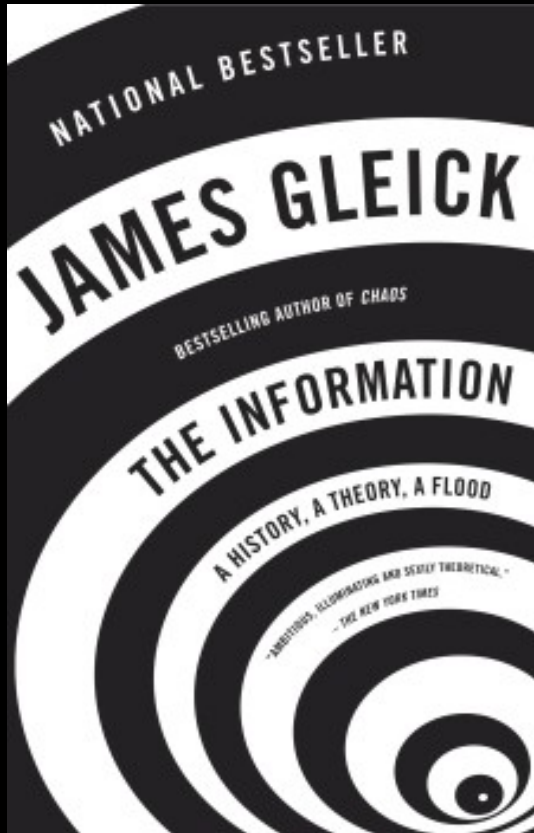


- 6U CubeSat Platform
- Onboard Computer (OBC)
- Electric Power System (EPS)
- Attitude Determination and Control Subsystem (ADCS)
- X-Band Transmitter
- UHF Transceiver
- Solar Panel

<https://endurancein.space>

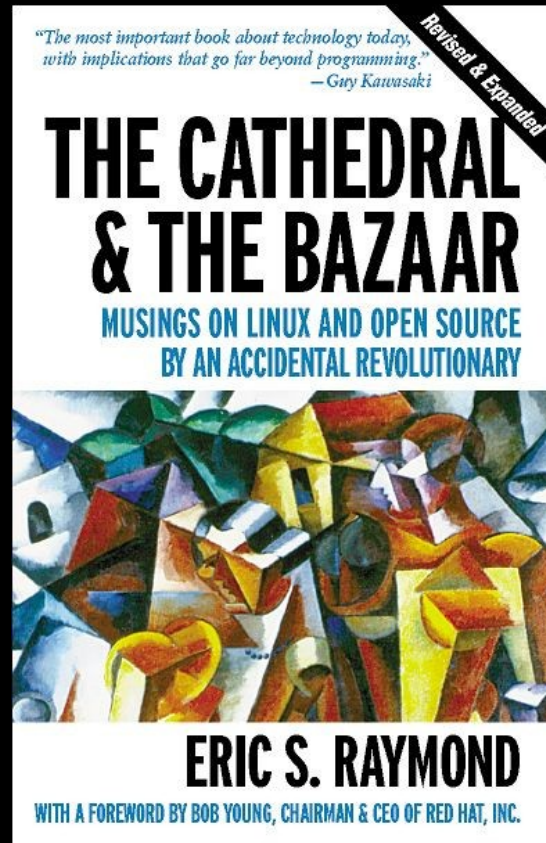
# Recommended reading





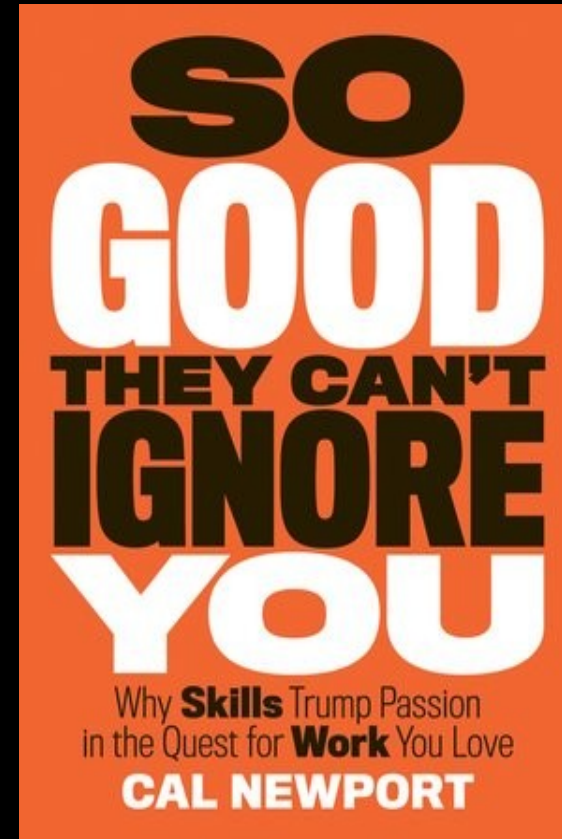
**The information:  
A history, a  
theory, a flood.**

- James Gleick



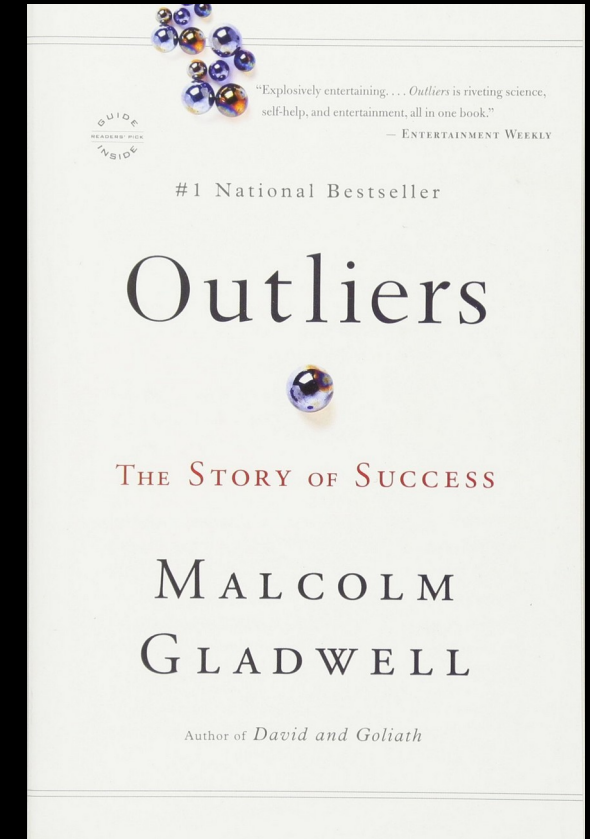
**The cathedral and  
the bazaar.**

- Eric S. Raymond



**So good they can't  
ignore you.**

- Cal Newport



**Outliers: The  
story of success.**

- Malcolm Gladwell



# Q & A



## **Code:**

<https://github.com/alanverdugo>



## **Slides:**

[https://github.com/alanverdugo/CUCEI\\_talk](https://github.com/alanverdugo/CUCEI_talk)



## **E-mail:**

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