

Steps to Install Software

1. Subscribe to Polygon’s (newly named Massive) Stock Starter Subscription - 29.99/mo.
2. Open account with Alpaca as Individual (Trading API) - Free
3. Navigate to [Google Cloud](#) and create an account.
4. Navigate to **Console > Navigation Menu > Products > Compute Engine > Virtual Machines > VM Instances > Create Instance**
5. Name and create your virtual machine (in this example we have named it ‘pancakes’).
Region and Series settings can be left as default. Lastly, for Machine Type it is wise to select ‘Custom’ then roughly 1vCPU and 3G for this virtual machine.

Machine configuration

Name *
instance-20251107-162606

Region *
us-central1 (Iowa)
Region is permanent

Zone *
Any
Google will choose a zone on your behalf, maximizing VM obtainability. Zone is permanent.

NEW: General-purpose AMD machine series now available

Try the new N4D series, a high performance and cost-optimized machine series ideal

Try now

General purpose

Compute optimized

Memory optimized

Storage optimized

GPUs

Machine types for common workloads, optimized for cost and flexibility

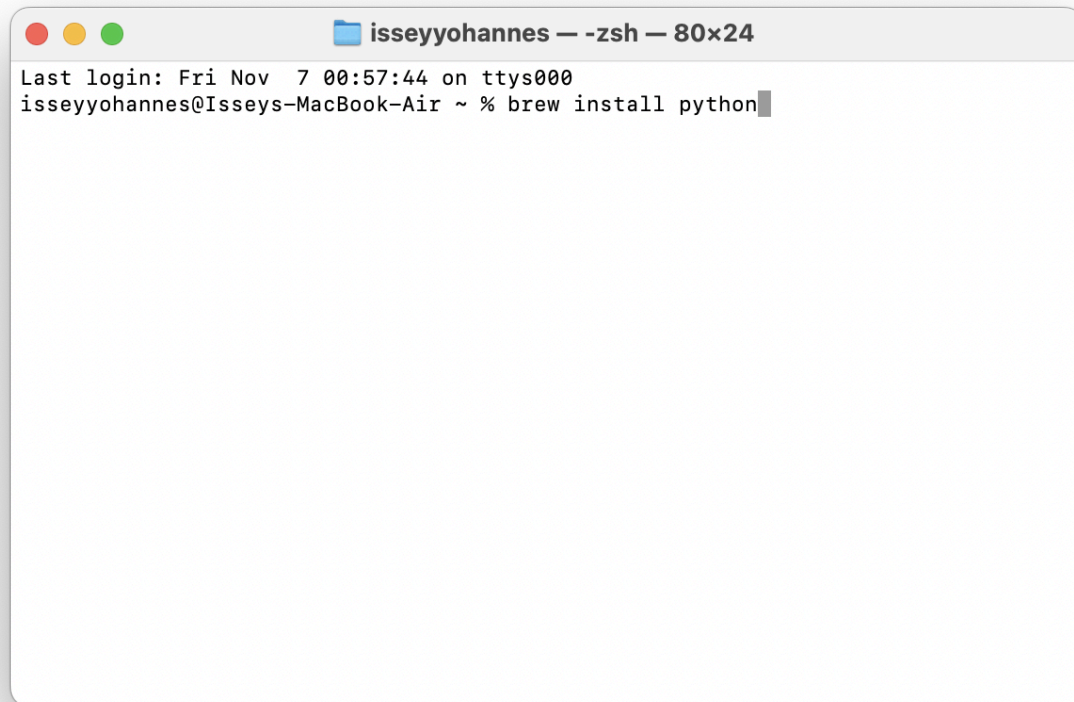
	Series ?	Description	vCPUs ?	Memory ?	CPU Platform
☐	C4	Consistently high performance	2 - 288	4 - 2,232 GB	Intel Emerald
☐	C4A	Arm-based consistently high performance	1 - 72	2 - 576 GB	Google Axion
☐	C4D	Consistently high performance	2 - 384	3 - 3,072 GB	AMD Turin
☐	N4	Flexible & cost-optimized	2 - 80	4 - 640 GB	Intel Emerald
☐	N4D	Flexible & cost-optimized	2 - 96	4 - 640 GB	AMD Turin
☐	C3	Consistently high performance	4 - 192	8 - 1,536 GB	Intel Sapphire
☐	C3D	Consistently high performance	4 - 360	8 - 2,880 GB	AMD Genoa
☒	E2	Low cost, day-to-day computing	0.25 - 32	1 - 128 GB	Intel Broadwell
☐	N2	Balanced price & performance	2 - 128	2 - 864 GB	Intel Cascade
☐	N2D	Balanced price & performance	2 - 224	2 - 896 GB	AMD Milan
☐	T2A	Scale-out workloads	1 - 48	4 - 192 GB	Ampere Altra
☐	T2D	Scale-out workloads	1 - 60	4 - 240 GB	AMD Milan
☐	N1	Balanced price & performance	0.25 - 96	0.6 - 624 GB	Intel Haswell

Create

Cancel

Equivalent code

6. Open your local terminal.



7. Run in the local terminal to install python.
brew install python
python3 -m ensurepip --upgrade
/usr/local/bin/python3 -m ensurepip --upgrade
8. Run in the local terminal to install appropriate libraries.
/usr/local/bin/python3 -m pip install customtkinter pillow pandas requests numpy
alpaca-py paramiko python-dotenv pyinstaller
9. Run in the local terminal to create keys
ssh-keygen -t rsa -b 4096 -f ~/.ssh/pancakes-key -C "official_admin@algora1.com"
 - Press Enter to for no pass phrase twice
10. Run in local terminal to set permissions for keys
chmod 400 ~/.ssh/pancakes-key AND chmod 644 ~/.ssh/pancakes-key.pub
11. Run in the local terminal to upload keys to the virtual machine
**gcloud compute instances add-metadata pancakes **
**--zone=us-central1-a **
--metadata "ssh-keys=official_admin:\$(cat ~/.ssh/pancakes-key.pub)"
 - Enter password to local macOS user account
12. Download investing engines, drag to desktop, and unzip
13. Run in local terminal to upload software (make sure file is in local desktop)
scp -i /Users/isseyyohannes/.ssh/pancakes-key /Users/isseyyohannes/Desktop/TSLA
official_admin@56.73.92.8:/home/official_admin/
 - Are you sure you want to continue connecting (yes/no/[fingerprint])?
Respond with yes

14. Run in the local terminal to connect (SSH) to the virtual machine.
`ssh -i /Users/isseyyohannes/.ssh/pancakes-key official_admin@56.73.92.8`
15. Run in connected local terminal to install python and active virtual environment
`sudo apt update`
`sudo apt install python3 python3-pip python3-venv`
`python3 -m venv myenv`
`source myenv/bin/activate`
`pip install pandas requests numpy alpaca-py python-dotenv pyinstaller`
16. Ensure transfer file has proper permission
`chmod +x TSLA`
17. Run in connected local terminal to edit bashrc script file
`nano ~/.bashrc`
 - a. Scroll to bottom of file and paste the following
`export ALPACA_API_KEY="M7X3C9VQF2L8J5TZH1RKD4NSWY"`
`export ALPACA_SECRET_KEY="Lw3Vn8qTgRzF1sA2pYxJ9kM4hCjB6eNfUoZtQ5rXvDiE7mSb"`
`export POLYGON_API_KEY="M2bXn8tVhR5qD1zWjL3sG9pY4aK7cEoNfU6vJxT0yZrCmFiSA"`
 - b. Save File - Press Control + X then press Control + Y then Enter
 - c. Run in connected local terminal to apply changes to bashrc script file
`source ~/.bashrc`

More Information

pancakes: Name of the virtual machine (pancakes-key.pub is public key and pancakes-key is private)

official_admin@algora1.com: Email address used to create account

official_admin: Beginning of email address used to create account

56.73.92.8: External IP address found in Console > Navigation Menu > Products > Compute Engine > Virtual Machines > VM Instances

isseyyohannes: Name the user of the local machine

Run **whoami** in the local terminal to find your user's name

myenv: Name assigned to the virtual environment.

TSLA: Name of investing engine selected ()

Us-central1-a: Time zone of your virtual machine. Navigate to Console > Navigation Menu > Products > Compute Engine > Virtual Machines > VM Instances to view your time zone

Steps to Run Software

1. Run in a new local terminal to connect (SSH) to the virtual machine.
`ssh -i /Users/isseyyohannes/.ssh/pancakes-key official_admin@34.67.96.0`
2. Run in connected local terminal to activate virtual environment
`source myenv/bin/activate`
3. Run in connected local terminal to open separate session
`screen -S investing_bot`
4. Run in connected local terminal to run software
`./TSLA`
5. Run in connected local terminal to check if algorithm is running
`screen -r investing_bot`
 - a. Leave without disrupting
Control + A then Control + D
 - b. Leave and stop algorithm
Control + C

Investing Engines Available

TSLA : This algorithm actively invests in TSLA when positions are identified as having a high probability of generating significant returns. It allocates the entirety of available capital in the Alpaca account to maximize potential leverage. All market conditions are continuously monitored on a per-second basis to mitigate the impact of any downward momentum on the portfolio.

NVDA : This algorithm actively invests in NVDA when positions are identified as having a high probability of generating significant returns. It allocates the entirety of available capital in the Alpaca account to maximize potential leverage. All market conditions are continuously monitored on a per-second basis to mitigate the impact of any downward momentum on the portfolio.

SPLIT : This algorithm actively invests in TSLA and NVDA, allocating 50% of available capital to each. It targets positions identified as having a high probability of generating significant returns and deploys the entirety of available capital in the Alpaca account to maximize potential leverage. All market conditions are continuously monitored on a per-second basis to mitigate the impact of any downward momentum on the portfolio.