

BlackSwan AI Trading White Paper

An AI powered trading tool to leverage against potential market hazards and profit from all eventualities by analyzing real-time news reports.



At the time of writing in March 2023, the price of Bitcoin is \$27697 [1]. After one of the worst years ever for Bitcoin and the general crypto industry in 2022, optimism is finally returning to the markets with a serious bull case being made for the first time in what feels like an eternity.

The last year has been riddled with highly sudden and disruptive unforeseen events which have unsettled markets and caused sudden flash crashes. Examples include, but are not limited to, the downfall of Terra Luna and its UST algorithmic stablecoin [2], the collapse of crypto hedge fund Three Arrows Capital (3AC) resulting in investor losses of \$3.5 billion [3], numerous cross-chain bridge hacks [4] including the theft of \$570 million from the Binance Smart Chain (BSC) bridge [5], an Ethereum fork developed by arguably the most respected crypto exchange. And, of course, most infamously, the catastrophic collapse of FTX [6] and downfall of Sam Bankman-Fried. FTX was the second largest crypto exchange [7] by trading volume and resulted in large scale misery as the funds of over 5 million customers [8] were completely wiped out. Many of those customers stored their life savings in FTX and lost everything, having been duped by FTX's reputation as a reputable and trusted exchange and SBF's image as a responsible leader.

Most recently in 2023, after optimism had returned to the markets, disaster was narrowly avoided (so far...) after the bankruptcy of Silicon Valley Bank [9] followed by the liquidation of crypto bank Silvergate [10] which led to widespread fear of a general banking crisis as \$620 billion worth of unrealized losses on balance sheets across the sector were unveiled [11]. Biden announced a bailout for SVB depositors [12] and the Federal Reserve reversed its contractionary monetary policy adding \$393 billion to its balance sheet [13] in order to be able to prop up the troubled financial sector.

These measures appear to have calmed markets for now, with both the general stock market and major cryptocurrencies currently stable. However, it seems that the industry is far from out of the woods at the moment, with lingering concerns about the implications of the narrowly-averted disaster in the wake of the UBS takeover of Credit Suisse [14]. In the EU, fears remain over whether Deutsche Bank could be next [15][16], and whether authorities would even be willing or able to bail out the industry should a widespread collapse occur [17].

The purpose of highlighting these events in detail is not to instil fear (FUD as some may say) or doom and gloom, but to outline the constant and very real threat that sudden and unexpected (or, by this point, not-so-unexpected) catastrophic events pose to investors both in the stock market and cryptocurrency space as optimism begins to return. These sudden and brutal bearish events are often referred to as 'black swans' [18] by traders, and it's fair to say that most people are getting sick of them. For the entirety of the past year, it has felt like every time the market has shown signs of stabilizing or even reversing to a bullish trend, all progress has been wiped out or threatened by some sudden and shocking news leading to mass hysteria and panic selling.

If you are reading this white paper, you are most likely active in the DeFi space and have positions in projects with tokens listed on decentralized exchanges (Dex). With signs of a bullish reversal, many investors in the space have been enjoying substantial gains during the first quarter of 2023, particularly with the AI trend that has been sweeping the DeFi space since the release of ChatGPT [19]. Investors in DeFi projects however, are particularly vulnerable to market turmoil as these coins often have concentrated supplies with large 'whales' able to significantly move the price downwards in a single sell, often causing a chain reaction which can see the majority of a token's value wiped out in a single day. To compound this issue, most DeFi projects are paired against a major cryptocurrency such as Ethereum (ETH) or BNB in a liquidity pool which acts as an automated market maker to allow investors to be able to freely trade the token at all times. [20][21] This means that, when a token is traded in a liquidity pool and the token it is paired against as the base of that trading pair falls in value, the token that is being traded in that pool also falls in value as it derives its value from the base currency that it can be redeemed for when selling.

Introducing BlackSwan AI as the solution

BlackSwan AI Trading therefore is a tool or trading app intended to allow crypto and particularly DeFi investors to continue investing in their favorite new projects and accumulating positions in large coins while hedging and mitigating against risk from sudden bearish news. How do we accomplish this? BlackSwan AI Trading gathers feeds of news reports in real-time from various cryptocurrency and finance websites and feeds this information to the OpenAI API. The user of BlackSwan AI inputs a list of criteria into a JSON file before the app is run, specifying a list of conditions which the user feels may have an effect on the price of a given trading pair of a large cryptocurrency. OpenAI uses the GPT-3 language model to analyze the content of the news report, and determine whether it meets any of the criteria specified by the user. If the AI finds that

the news report does indeed match one of the criteria on the used-defined list, a request is sent to the ByBit API to execute a leveraged futures trade of a user-defined size against a pair of the user's choice.

This process allows the user to prepare for events they may fear occurring in the markets, and execute a leveraged short position only when a news report is released confirming that the feared event has transpired. By scanning news reports in real-time and having the AI instantaneously analyze them, a trade can potentially be made within seconds of the news being released and a position can be opened before the full effect of the price impact has been fully realized by the market. The trader can stand to make substantial profits from the effect of that news by being one of the first to execute a trade based upon it, with the effect on price presumably being obvious and predictable if the news is highly significant and previously unexpected or uncertain.

```
conditions.json
{
  "conditions": [
    {
      "condition": "A large cryptocurrency exchange has been hacked resulting in a potential or actual loss of funds for customers.",
      "direction": "SHORT",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "A large cryptocurrency exchange is facing potential or actual insolvency or bankruptcy which could result or is resulting in a large loss of funds for customers.",
      "direction": "SHORT",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "A very large bank or important financial institution is facing potential or actual insolvency or has gone into administration/liquidation/bankruptcy.",
      "direction": "SHORT",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "The US, EU, or EU member state (or high-ranking politician, regulator or central banker thereof) announces or suggests it is not willing or able to bail out or save a very large financial institution facing collapse.",
      "direction": "SHORT",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "A cryptocurrency cross-chain bridge or DeFi network/blockchain has been hacked resulting in a very large loss of funds.",
      "direction": "SHORT",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "Joe Biden, Gary Gensler or the SEC announces regulatory crackdown on cryptocurrency.",
      "direction": "SHORT",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "The EU announces further strict cryptocurrency regulations which limit the ability of individuals to hold or trade cryptocurrency or seriously restricts cryptocurrency businesses.",
      "direction": "SHORT",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "China moves or announces plans to legalise or decriminalise crypto trading or holding (or a credible rumour suggests they will).",
      "direction": "LONG",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "Latest US inflation figures lower than expected or economic data such as GDP growth or employment better than expected.",
      "direction": "LONG",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    },
    {
      "condition": "The Federal Reserve or Jerome Powell voices intentions or announces plans to reduce interest rates or begin a new round of Quantitative Easing to prop up the economy.",
      "direction": "LONG",
      "pair": "BTCUSD",
      "quantity_in_usd": "1000"
    }
  ]
}
```

An example of the JSON config file where the end-user specifies under what condition to execute a trade and what action to take.

Not just for the bear

As you can see from the above example of the configuration file, the user has the option to go either long or short when a condition is met – meaning you can bet on the price going up or down.

There are many conditions under which sudden news could be bullish for cryptocurrency as a whole, and BlackSwan AI will allow you to make trades on these as well. For example, the Federal Reserve may announce plans to start cutting interest rates, new economic data may suggest the economy is faring better than previously thought, or a major country such as China may announce plans to adopt a more crypto-friendly approach.

Why ByBit?

ByBit is a popular exchange with leveraged futures options, at the time of writing it is the 5th largest by daily trading volume [22]. ByBit is a popular exchange with many trading pairs and high liquidity, making it a good option for leveraged futures trading. Perhaps most importantly it is one of the few large exchanges that does not require Know Your Customer (KYC) to begin trading, so anybody can sign up and create an account without going through the invasive and obnoxious process of providing their full name, address, phone number and most importantly identity documents and completing a liveness test. In line with the DeFi community as a whole, one of the core values of BlackSwan AI Trading is privacy and we are strongly opposed to the absurd and completely over the top requirement to hand over highly sensitive data to merely make trades with modest amounts of personal funds. The collection of large numbers of identity documents on a single server presents a huge security risk as the incentive for hackers to try to gain access and leak data is enormous, as well as the potential for rogue staff to secretly misuse that data without being detected, and the possibility that the exchange itself may go rogue and misuse that data by selling it to third parties or leaking it themselves. In the case of failed crypto exchange Celsius, tens of thousands of customer names along with transaction details specifying amounts were revealed to the public in a court filing by the company upon their bankruptcy. [23] Sensitive financial information representing all these clients who trusted Celsius with their data was put into the public domain potentially putting all those people at risk of blackmail, attempted fraud, theft, hacks etc and in the worst cases real-world physical violence and kidnapping [24][25][26][27]. As a crypto user you should always attempt to avoid using KYC'd services whenever possible, when an alternative exists (and never share details of any significant wealth you may or may not hold except with your closest and most trusted family members/loved ones).

We will be looking to expand our support for other exchanges such as Binance, Kraken, KuCoin and Bitfinex in a later Phase of our roadmap which is discussed in more detail below. It is our understanding that U.S. customers are IP blocked on ByBit however this can be easily bypassed using a VPN or VPS until we expand to other exchanges.

ROADMAP – What’s in store for BlackSwan AI

```
Welcome to BlackSwan AI v1.0 - Proof of Concept Release

[ASCII ART]

!!! WARNING !!!
Use of this product is solely at the user's own risk. This product automatically executes leveraged futures trades according to AI analysis of news reports against user-defined criteria. Results are never guaranteed to be accurate and the developer makes no assurances about the quality of trades. Futures trading always carries risk of liquidation i.e. 100% loss of capital. Always manage risk by moderating your leverage and ONLY INVEST WHAT YOU CAN AFFORD TO LOSE.
!!! WARNING !!!

NEW STORY DETECTED: G-7 to push for tighter cryptocurrency regulations - The Group of Seven major industrialized democracies will promote tougher regulations of the cryptocurrency sector, aiming to increase business transparency and consumer protections, officials with knowledge of the plan said on March 26.
LINK: https://english.kyodonews.net/news/2023/03/694fcb5d1fa9-g-7-to-push-for-tighter-cryptocurrency-regulations.html

Condition 1: A large cryptocurrency exchange has been hacked resulting in a potential or actual loss of funds for customers.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a large cryptocurrency exchange being hacked.

Condition 2: A large cryptocurrency exchange is facing potential or actual insolvency or bankruptcy which could result or is resulting in a large loss of funds for customers.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a large cryptocurrency exchange facing potential or actual insolvency or bankruptcy.

Condition 3: A very large bank or important financial institution is facing potential or actual insolvency or has gone into administration/liquidation/bankruptcy.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a very large bank or important financial institution facing potential or actual insolvency or has gone into administration/liquidation/bankruptcy.

Condition 4: The US, EU, or EU member state (or high-ranking politician, regulator or central banker thereof) announces or suggests it is not willing or able to bail out or save a very large financial institution facing collapse.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention the US, EU, or EU member state (or high-ranking politician, regulator or central banker thereof) announcing or suggesting it is not willing or able to bail out or save a very large financial institution facing collapse.

Condition 5: A cryptocurrency cross-chain bridge or DeFi network/blockchain has been hacked resulting in a very large loss of funds.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a cryptocurrency cross-chain bridge or DeFi network/blockchain being hacked resulting in a very large loss of funds.

Condition 6: Joe Biden, Gary Gensler or the SEC announces regulatory crackdown on cryptocurrency.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention Joe Biden, Gary Gensler or the SEC announcing regulatory crackdown on cryptocurrency.

Condition 7: The EU announces further strict cryptocurrency regulations which limit the ability of individuals to hold or trade cryptocurrency or seriously restricts cryptocurrency businesses.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention the EU announcing further strict cryptocurrency regulations which limit the ability of individuals to hold or trade cryptocurrency or seriously restricts cryptocurrency businesses.

Condition 8: China moves or announces plans to legalise or decriminalise crypto trading or holding (or a credible rumour suggests they will).
Action: Go LONG on BTCUSD for position size of $1000
False: The news article does not mention China moving or announcing plans to legalise or decriminalise crypto trading or holding (or a credible rumour suggests they will).

Condition 9: Latest US inflation figures lower than expected or economic data such as GDP growth or employment better than expected.
Action: Go LONG on BTCUSD for position size of $1000
False: The news article does not mention latest US inflation figures lower than expected or economic data such as GDP growth or employment better than expected.

Condition 10: The Federal Reserve or Jerome Powell voices intentions or announces plans to reduce interest rates or begin a new round of Quantitative Easing to prop up the economy.
Action: Go LONG on BTCUSD for position size of $1000
False: The news article does not mention the Federal Reserve or Jerome Powell voicing intentions or announcing plans to reduce interest rates or begin a new round of Quantitative Easing to prop up the economy.
```

An example of the BlackSwan AI v1.0 proof of concept release running in a terminal window.

PHASE 1 – Free trial period and Proof of Concept release | Marketing and awareness Phase

At launch BlackSwan AI will be available as part of a free trial where we will aim to demonstrate the functionality and efficacy of the software and the concept. The software will connect to a validation server in order to function and after a period of time, in Phase 2 when usage becomes restricted, the v1.0 Proof of Concept release will no longer work.

This Phase will allow users to get a feel for the software and appreciate its power and potential while we work on adding more options and features. Out of the box, BlackSwan AI will come pre-configured with the criteria for trading shown in the screenshot above, allowing users to jump right in and get set up straight away. Users will of course be able to customize it for trading to their heart's content and are actively encouraged to do so.

During this Phase we will begin a coordinated campaign on crypto Twitter and across Telegram and communicate with various influencers and private insider groups who may

be interested in the project and promoting it for their own benefit, as well as partnering with like-minded utility and AI projects within the space.

PHASE 2 – Token Requirement/monetization, Twitter monitoring, support for linear trading pairs, greater variety of programmable settings, support for Take Profit/Stop Loss

At the release of Phase 2, we will be disabling all free trial versions of the BlackSwan AI Trading Bot. Holding 50,000 \$BLACKSWAN tokens (0.5% of the total supply) will be required to continue using the bot. Large holders will therefore belong to a privileged and elite group of a relatively small number of individuals who get to use the bot to protect themselves from market uncertainty and profit from both bullish and bearish events.

We will be also adding support for monitoring the Twitter feeds of prominent figures and news sources in the crypto Twitter space as rumours and breaking news often surfaces there first. Initially this will be a predefined list of accounts until an update in Phase 3.

At the v1.0 Proof of Concept launch the trading bot will only support inverse futures pairs. These are trading pairs such as BTCUSD or ETHUSD where the collateral for trades is BTC or ETH, as opposed to the base currency which would be USD. When using the bot to hedge against market hazards by placing short positions upon bearish news, some traders may prefer inverse pairs as having a coin such as BTC or ETH as collateral will mean that if the price does go up after executing a trade, the liquidation price will be significantly higher as the unrealized losses will be cancelled out by the rising value of the collateral to some extent. Others may prefer to stake a stablecoin such as USDC as collateral if they have a generally bearish outlook. During the Phase 2 update you will have the option to trade with USD pairs and place a stablecoin such as USDC or USDT as collateral.

We will also add the option to customize your leverage within the bot's config files and you will be allowed to set different amounts of leverage for different conditions. At launch you will be required to set this manually on the ByBit web app and you will simply need to set your total position size according to your risk appetite for each condition.

During Phase 2 we will also add support for adding Take Profit/Stop Loss (TP/SL) criteria to your trading settings. This will allow you to automatically close positions in profit once

a certain target has been met, or cut your losses at a certain price when you hit a Stop Loss. During the Phase 1 proof of concept release, traders will need to manually monitor their account and the BlackSwan AI console itself. You should be able to easily monitor when a new trade has taken place and set up notifications within the ByBit app itself.

We expect the release of Phase 2 within 2 weeks for the launch of BlackSwan AI.

PHASE 3 – Support for multiple exchanges, Telegram alerts bot and custom Twitter monitoring

At the release of Phase 3 support for other exchanges will be added, and at the time of writing we are hoping to support exchanges such as Binance, Bitmex, Kraken and Kucoin.

In this Phase we will add a Telegram Bot which connects to their instance of the bot and alerts them whenever a new story is posted, and whether a trade has been executed.

We will also be adding additional settings to allow users to specify which Twitter feeds they would like the bot to monitor and analyze for news content in this Phase.

We expect the release of Phase 3 to be within 1 month of the release of the initial proof of concept launch.

PHASE 4 – Telegram Bot auto-setup, remote instance hosting and removing individual OpenAI API keys

In Phase 4 we will add the option for users who prefer to completely setup and monitor the trading bot within Telegram. Users will be able to communicate with a Telegram bot in DM and add conditions for trading and trading criteria to be executed once a news story returns a match. We will make use of third-party secret managers such as Google Secret Manager to allow users to safely store their API keys for usage with the bot via Telegram without sharing or broadcasting them to the developers or Telegram.

At the v1.0 launch users of the bot will be required to create an OpenAI account and generate their own API key to use the bot. The OpenAI API is a paid service which comes with \$15 of free credit upon registration and no card is immediately required, we predict this should last the user 1-2 months of usage. During Stage 4, depending on how

many people are using the bot, we will integrate our own keys into the bot and remove the requirement for users to have their own OpenAI account.

PHASE 5 – Smart sentiment analysis, historically trained predictive AI, DeFi and stock trading and Telegram channel monitoring

At Phase 5, we will add an experimental feature which analyzes news reports on their own merit to determine whether they are a) unexpected and b) highly consequential to the cryptocurrency space and c) bullish or bearish. For traders with a slightly higher risk appetite, we will allow the bot to automatically make trades based on news reports without any particular criteria or events being specified. To do this we will aim to create specially trained AI models from years of news reports and market data to allow our AI to detect the relationship between news and its impact on market prices, and make predictions about the impact of breaking news on market price. This feature will require extensive testing hence its addition during Phase 5, and we would strongly encourage traders to use low leverage and small amounts of collateral for trades executed using this strategy.

During Phase 5 we will also allow users to connect the bot to web3 wallets and make trades on desired DeFi pairs of their choice according to potential news they may be looking for. To help accomplish this, we will be adding the option to scrape Telegram channels for information and use them to execute trades when criteria is met, whether this relates to traditional futures pairs or DeFi tokens.

And finally, during Phase 5 we will look to expand support to traditional trading platforms allowing you to execute a news based strategy to trade futures contracts for major companies listed on the stock market and possibly even commodities such as oil and gold and index trackers such as the S&P 500, Dow Jones or FTSE 100.

PHASE 6 – The future and beyond

BlackSwan AI will be a long-term endeavor and as we grow we expect the roadmap to evolve and adapt. We will be constantly looking for new possibilities for analyzing market data, sentiment and events and use the information to make smart and informed trades. As we grow along our journey you will see features being added to these lists and this white paper itself being updated.

We aim to create the ultimate trading bot for hedging against risk and using information in the public domain to our absolute advantage in the quickest manner possible.

TOKENOMICS

The BlackSwan AI Trading token will launch on the Ethereum chain (ERC-20). It will have the following general tokenomics:

- 10 million total supply
- 2% max wallet
- 1% max transaction
- 5% tax (breakdown):
 - . 3% for marketing and general expenditure
 - . 2% developer fee
- 1 ETH initial liquidity at launch
- 3 month lock at launch to be extended to 1 year at 250K market cap

HOW DO I USE IT ?

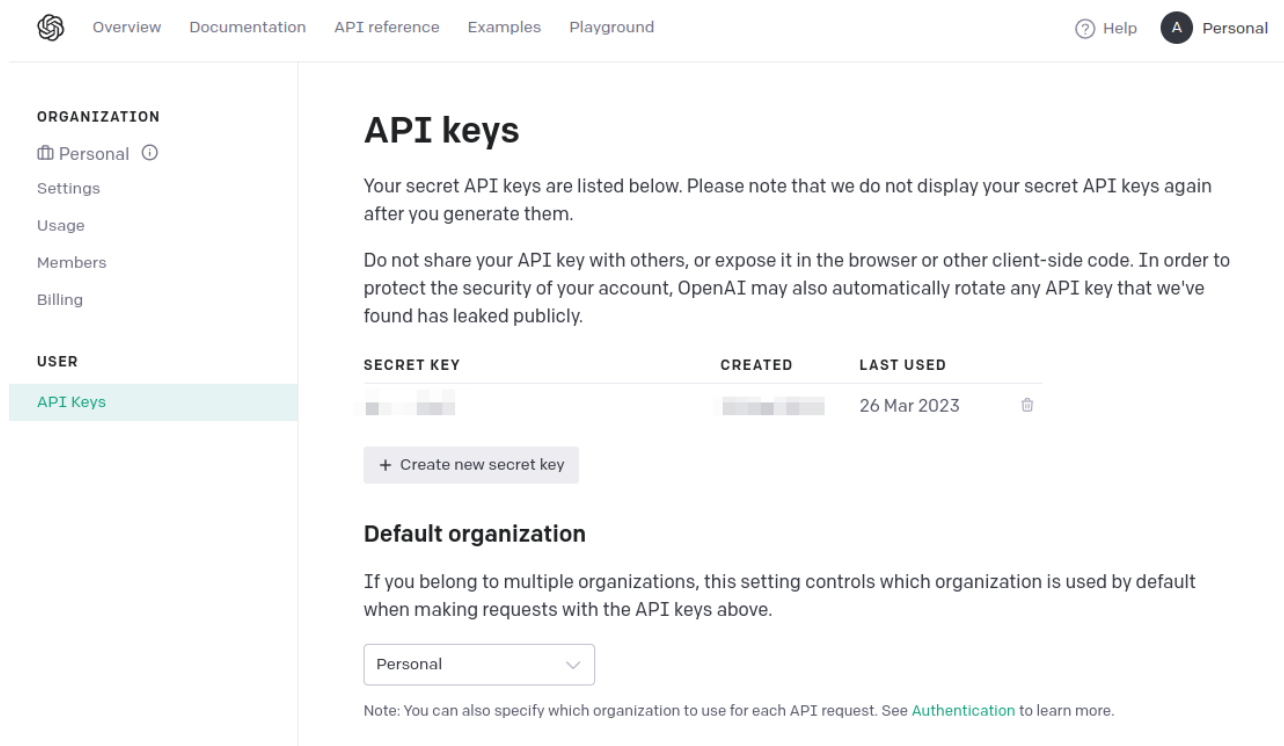
We will be publishing full instructions for using, configuring and troubleshooting the bot in a Gitbook which will be linked at the bottom of this white paper below.

The bot will run as a Python application and you will be required to have the latest version of Python 3 installed. You can download it here: <https://www.python.org/> if you are a Windows user. If you are a Mac or Linux user you should find you already have Python 3 installed, simply go to a terminal and enter python3 to confirm.

After confirming you have the latest version of Python you will need to install the following packages using PIP:

- . feedparser
- . beautifulsoup
- . openai
- . Bybit

You will then need to sign up for an OpenAI account and generate an API key. If you have already created an account to access ChatGPT you will have already done this and can login with your existing account at: <https://platform.openai.com/overview> From here you should click 'Personal' in the top right corner and then 'View API Keys'. From here you can generate an API key to use with the bot. Remember to save your API key once it has been generated as you will not be able to view the same key again from this page.

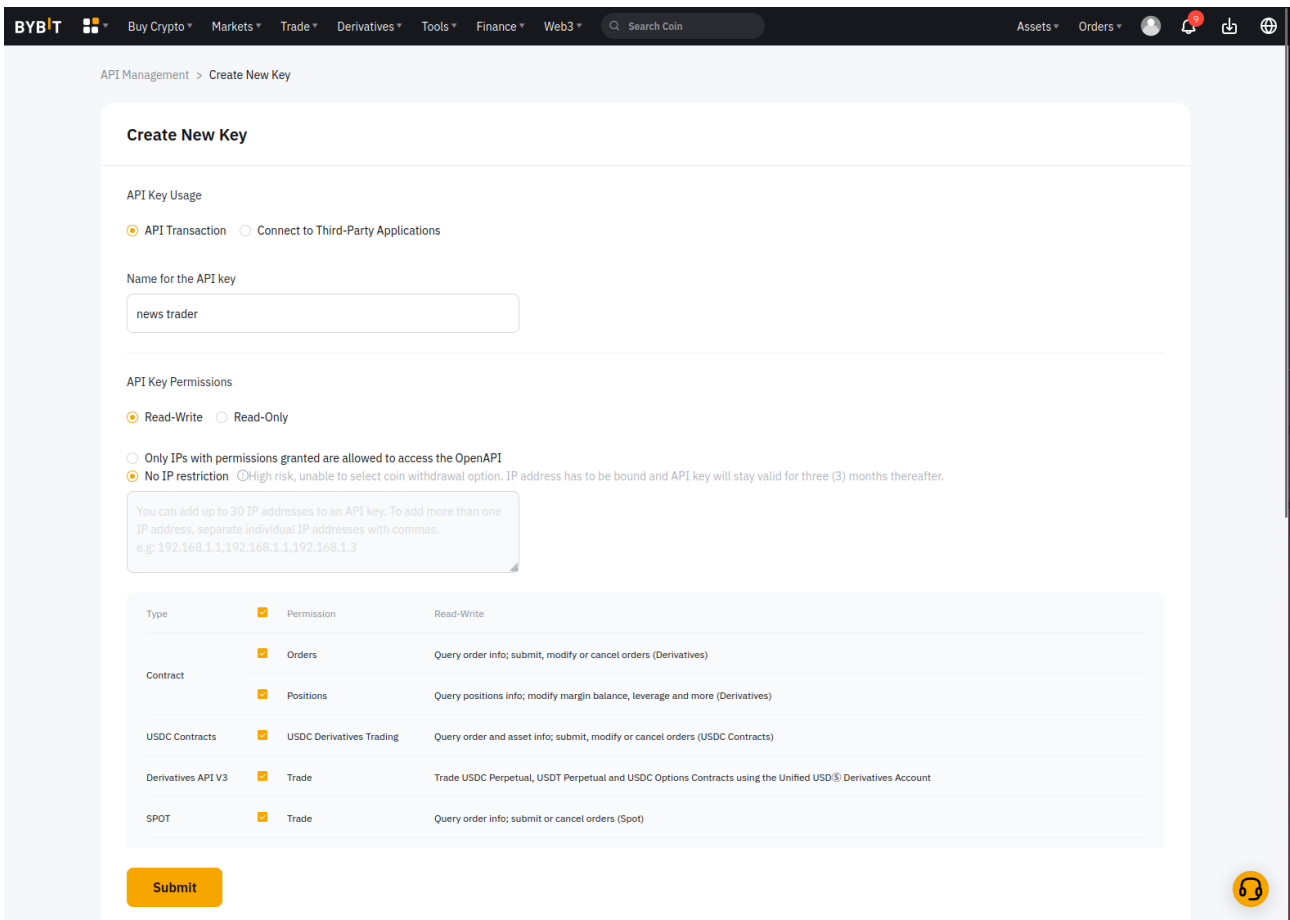
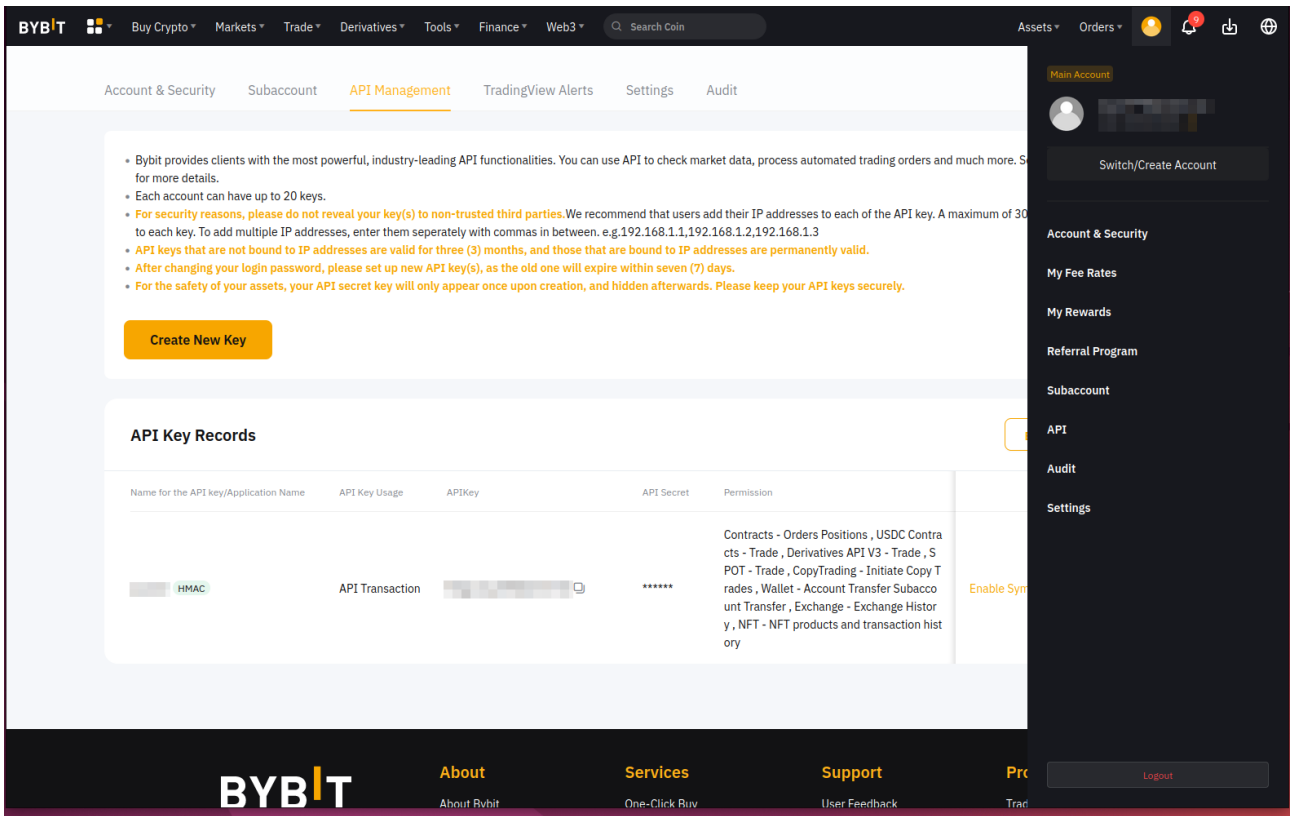


The screenshot shows the OpenAI API Keys management interface. At the top, there are navigation links: Overview, Documentation, API reference, Examples, and Playground. On the right, there are links for Help and Personal. The left sidebar is divided into 'ORGANIZATION' (Personal, Settings, Usage, Members, Billing) and 'USER' (API Keys). The main content area is titled 'API keys' and includes a warning about secret keys, a table of keys, a 'Create new secret key' button, and a 'Default organization' dropdown menu.

SECRET KEY	CREATED	LAST USED
[REDACTED]	[REDACTED]	26 Mar 2023

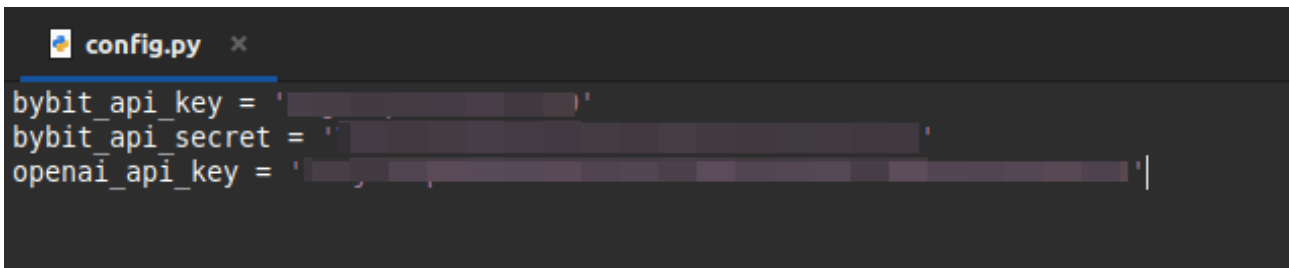
Above: The page on OpenAI where you generate your key pair for use with the bot

Next you will need to go to <https://www.bybit.com/en-US/register> and register for an account. Once you have successfully registered, you need to click on the profile icon in the top right corner and a drop-down menu should appear on the right of the screen. Click 'API' and you will be taken to the API management page, and from here you can create a new API key. Click the yellow 'Create New Key' button. When setting up your key make sure you select 'Read-Write' for API key permissions and from the list of conditions tick all boxes relevant to futures and derivatives trading. Screenshots are below.



Above: examples of the API management page on ByBit and the options when creating a new key.

After you have created both your OpenAI and ByBit API keys you will need to input them into config.py file as it is provided in the .zip file you downloaded for the application. Simple insert them between the quote marks in the file as shown in the image below:

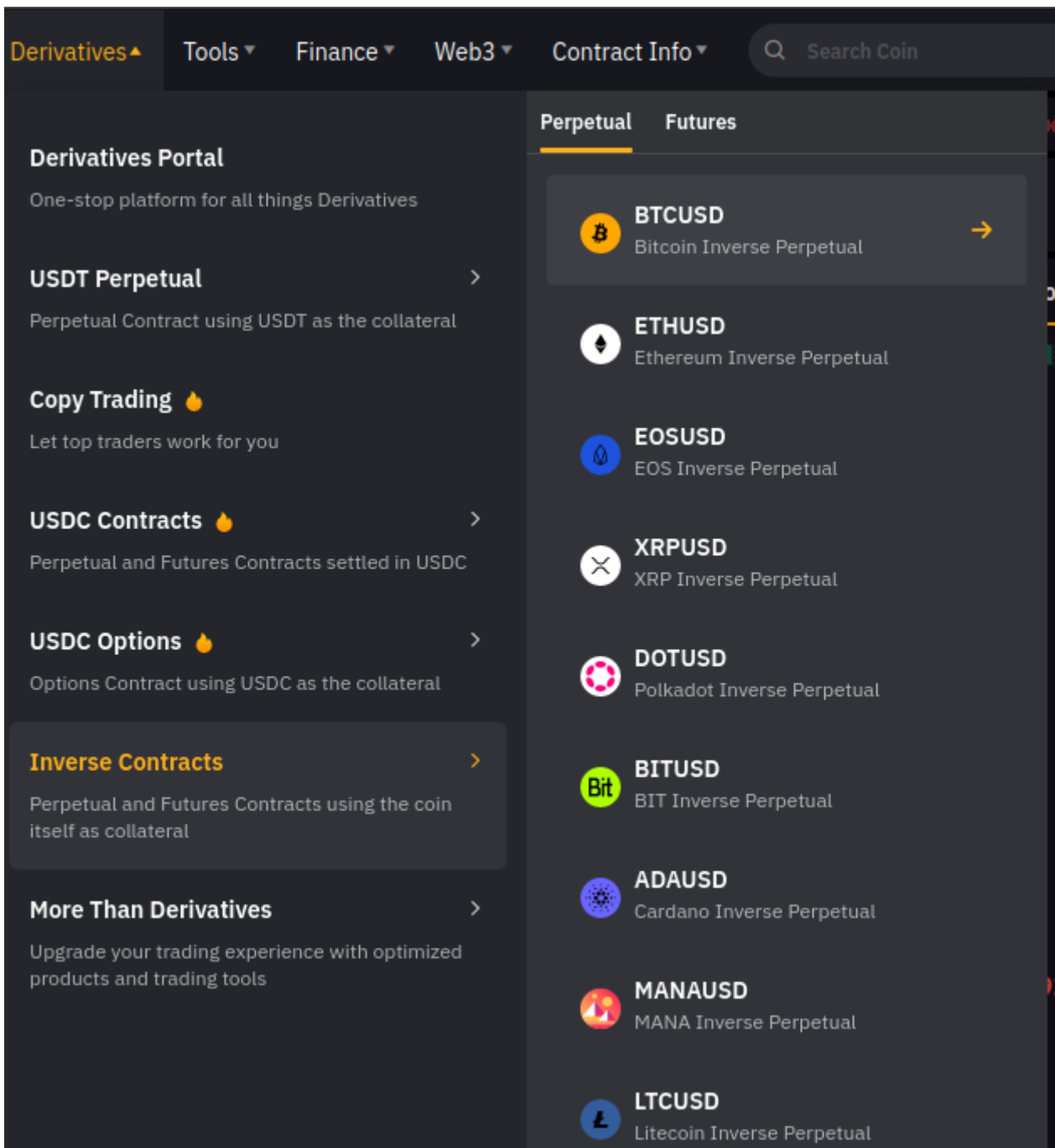
A screenshot of a code editor window titled 'config.py'. The code shows three lines of Python code where API keys are being assigned to variables. The first line is 'bybit_api_key = ' followed by a long string of characters enclosed in single quotes. The second line is 'bybit_api_secret = ' followed by a shorter string of characters enclosed in single quotes. The third line is 'openai_api_key = ' followed by a long string of characters enclosed in single quotes. The cursor is at the end of the third line.

You will now need to configure your conditions for trading. Open the conditions.json file in a text editor. You will see that the file is already populated with a list of 10 conditions for trading, and amounts to go either long or short. By default it is a total position size of 500 contracts or \$500 (*note: this is the total position size so if you are using leverage your margin or collateral will be a fraction of this*) for each condition, but you may wish to increase or decrease this depending on the amount of capital you have in margin, your risk appetite and the amount of leverage you intend to use. If you are happy with the amounts and conditions you can leave this file as it is and the bot will work out of the box once you have added your keys to config.py.

The conditions.json file must be formatted as valid JSON in the format given in the example file for the bot to work. It may be helpful to familiarize yourself with the general syntax of JSON however it should be obvious from looking at the file how it is supposed to be formatted for this purpose. For more information w3schools.com provides useful resources for this topic and basic educational coding resources:

https://www.w3schools.com/js/js_json_intro.asp

Finally, you must transfer some BTC or ETH (or other desired currency for your chosen inverse trading pair) to your ByBit wallet and then transfer it to your derivatives account. In the ByBit control panel, click 'Assets' at the top of the screen and then 'Deposit' and send some BTC/ETH to your account. Once you have deposited your chosen currency, click 'Derivatives' then 'Inverse Contracts' then 'BTCUSD' from the drop down menu like shown below:



Once you are on the trading page, set your desired amount of leverage to use with the BlackSwan AI trading bot by clicking where it says 'Cross | 10'. A box will open allowing you to choose your desired leverage and whether you want to use isolated or cross margin. Isolated means that you can only lose the amount of collateral put as margin for that trade, which is the total position size divided by the amount of leverage. When your unrealized loss equals the amount of margin put for that position, the value of the margin will be automatically liquidated and the position closed.

For an example, when using leverage with isolated margin, leverage of 5x will mean that your position will be closed when the price moves 20% in the wrong direction. With

leverage of 25x, your position will be automatically closed when the price moves 4% in the wrong direction from your entry price. With cross margin, your position will stay open until your unrealized loss equals your entire Derivatives Account balance and all funds in your Derivatives Account will be liquidated.

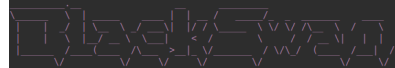
Isolated margin may be preferable for traders who want to manage risk and limit losses however it comes with increased probability that your position will be closed prematurely at a loss, especially when using high leverage. With cross leverage your position has more room to stay open before you can close in profit however it comes with the risk of all funds in your Derivatives Account being lost forever.

Now that you have set your leverage, you must click the Transfer button to transfer funds from your spot wallet into your Derivatives Account.



An illustration of where on the derivatives trading page to transfer assets to your Derivatives Account and set your desired leverage.

Now that you have transferred assets into your derivatives account and set your desired leverage, you are ready to run the BlackSwan AI app and begin trading. To start, simply open a terminal or command prompt in the folder of your BlackSwan instance and type 'python3 mainf.py' and you will see the app running and immediately beginning to scan news articles.



```
!!! WARNING !!!
Use of this product is solely at the user's own risk. This product automatically executes leveraged futures trades according to AI analysis of news reports against user-defined criteria. Results are never guaranteed to be accurate and the developer makes no assurances about the quality of trades. Futures trading always carries risk of liquidation i.e. 100% loss of capital. Always manage risk by moderating your leverage and ONLY INVEST WHAT YOU CAN AFFORD TO LOSE.
!!! WARNING !!!

NEW STORY DETECTED: G-7 to push for tighter cryptocurrency regulations - The Group of Seven major industrialized democracies will promote tougher regulations of the cryptocurrency sector, aiming to increase business transparency and consumer protections, officials with knowledge of the plan said on March 26.
LINK: https://english.kyodonews.net/news/2023/03/694fcb5d1fa9-g-7-to-push-for-tighter-cryptocurrency-regulations.html

Condition 1: A large cryptocurrency exchange has been hacked resulting in a potential or actual loss of funds for customers.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a large cryptocurrency exchange being hacked.

Condition 2: A large cryptocurrency exchange is facing potential or actual insolvency or bankruptcy which could result or is resulting in a large loss of funds for customers.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a large cryptocurrency exchange facing potential or actual insolvency or bankruptcy.

Condition 3: A very large bank or important financial institution is facing potential or actual insolvency or has gone into administration/liquidation/bankruptcy.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a very large bank or important financial institution facing potential or actual insolvency or has gone into administration/liquidation/bankruptcy.

Condition 4: The US, EU, or EU member state (or high-ranking politician, regulator or central banker thereof) announces or suggests it is not willing or able to bail out or save a very large financial institution facing collapse.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention the US, EU, or EU member state (or high-ranking politician, regulator or central banker thereof) announcing or suggesting it is not willing or able to bail out or save a very large financial institution facing collapse.

Condition 5: A cryptocurrency cross-chain bridge or DeFi network/blockchain has been hacked resulting in a very large loss of funds.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention a cryptocurrency cross-chain bridge or DeFi network/blockchain being hacked resulting in a very large loss of funds.

Condition 6: Joe Biden, Gary Gensler or the SEC announces regulatory crackdown on cryptocurrency.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention Joe Biden, Gary Gensler or the SEC announcing regulatory crackdown on cryptocurrency.

Condition 7: The EU announces further strict cryptocurrency regulations which limit the ability of individuals to hold or trade cryptocurrency or seriously restricts cryptocurrency businesses.
Action: Go SHORT on BTCUSD for position size of $1000
False: The news article does not mention the EU announcing further strict cryptocurrency regulations which limit the ability of individuals to hold or trade cryptocurrency or seriously restricts cryptocurrency businesses.

Condition 8: China moves or announces plans to legalise or decriminalise crypto trading or holding (or a credible rumour suggests they will).
Action: Go LONG on BTCUSD for position size of $1000
False: The news article does not mention China moving or announcing plans to legalise or decriminalise crypto trading or holding (or a credible rumour suggests they will).

Condition 9: Latest US inflation figures lower than expected or economic data such as GDP growth or employment better than expected.
Action: Go LONG on BTCUSD for position size of $1000
False: The news article does not mention latest US inflation figures lower than expected or economic data such as GDP growth or employment better than expected.

Condition 10: The Federal Reserve or Jerome Powell voices intentions or announces plans to reduce interest rates or begin a new round of Quantitative Easing to prop up the economy.
Action: Go LONG on BTCUSD for position size of $1000
False: The news article does not mention the Federal Reserve or Jerome Powell voicing intentions or announcing plans to reduce interest rates or begin a new round of Quantitative Easing to prop up the economy.
```

A newly running instance of BlackSwan AI Trading.

Please note if you want to do a test of the bot successfully executing a trade after a match on a news story was detected, you will see inside the folder there is a 'test_instance' folder next to the main file. In here you will see all the same files for running the bot, plus an additional file called 'fakenews.py'. Open it with a text editor and add a mock news story of your choice, and make sure there is a matching condition in conditions.json and run the instance of the bot in this folder. You should see the AI identifying a match and attempting to make a trade so you can confirm you have configured the bot correctly.

It is highly recommended to run the bot on a Virtual Private Server (VPS) for uninterrupted monitoring and execution. You can find information on configuring a VPS here:

<https://www.scalahosting.com/blog/6-easy-steps-to-configure-your-first-vps-server/> If you prefer not to use a VPS, a dedicated device such as a Raspberry Pi would be suitable to run the bot on for near zero power consumption.

Here is a list of VPS providers which accept crypto that you may want to consider using:

<http://crypto.net/~joepie91/bitcoinvps.html>

Thank you for reading our white paper and we hope you are as excited about the future of this cutting edge tool as we are. If you have any questions please reach out to us in our Telegram Group in the links below.

Website: <http://blackswan.biz>

Twitter: <https://twitter.com/BlackSwanAI>

Telegram: <https://t.me/BlackSwanAI>

Gitbook: [insert link here]

Download: [insert link here]

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