

Synapse Bootcamp - Pre-Course Setup

Synapse Bootcamp - Pre-Course Setup	1
Overview	2
Setup Instructions	3
Step 1 - Email account	4
Step 2 - Register for API Keys	4
LevelBlue Labs OTX	4
MalShare	9
MalwareBazaar (Abuse.ch)	10
VirusTotal	17
Optional Keys	22

Overview

The following steps should be completed **BEFORE** attending Synapse Bootcamp!

Synapse includes **Power-Ups** that provide additional features and functionality. Many Power-Ups that import data from third-party sources, such as VirusTotal or AlienVault, require an API key.

This document walks you through the process of registering for and obtaining several **free** API keys that we will use to configure the Power-Ups used in Synapse Bootcamp.

The pre-course setup process will take approximately 30 - 60 minutes. Completing these steps **before** class allows us to spend time learning about Synapse and performing hands-on analysis instead of setup tasks.

If you have questions or need assistance with the setup process, please contact us at training@vertex.link.

**Without the API keys, you will be unable to use the Power-Ups!
This may limit or prevent you from completing some lab exercises.**

Setup Instructions

To register for the API keys used in this course you will need an email account.

You can:

- use an **existing** email account (work or personal), or
- create a **new** email account just for Bootcamp (i.e., using a free email service).

Either way, **you must be able to log in to the email account** to receive confirmation emails from the various services. You must use the confirmation messages to activate your service accounts and obtain your API keys.

Note: Abuse.ch (MalwareBazaar) only supports OAuth authentication. You will need one of the following accounts to log in to MalwareBazaar and create your API key:

- Google (e.g., Gmail)
- X (Twitter)
- LinkedIn
- Github

If you do not want to use an existing personal or professional account, you can create one (e.g., a Gmail account) specifically for use in Bootcamp.

As you work through this setup process, **be sure to record the following**. You'll want to have this information readily accessible for Synapse Bootcamp:

- The email account you use, and its associated password.
- The username / password used to set up **each** free account with the third-party vendors / services below.
 - You will need to log in to each service to obtain your API key.
- The API key associated with each service.
 - Some services may require a second piece of data, such as a secret.
- **Protip:** If you have one, a password manager allows you to keep all of your account information in one location for both security and ease of access.

You will need to copy / paste your API keys during class to configure and use the Synapse Power-Ups.

Step 1 - Email account

Have the email account you will use to register for your API keys ready before you begin. You can use an existing account or create a new one to use for this class.

Step 2 - Register for API Keys

Note: If you have existing API keys for any of the following services, you may use those keys instead of registering for new ones. However, API keys may vary as to the API version or specific API endpoints they can access, quota limits, etc. **Pre-existing keys are not guaranteed** to be compatible with the hands-on exercises in Synapse Bootcamp.

- [AlienVault OTX](#)
 - [MalShare](#)
 - [MalwareBazaar \(Abuse.ch\)](#)
 - [VirusTotal](#)
 - [Optional Keys](#)
-

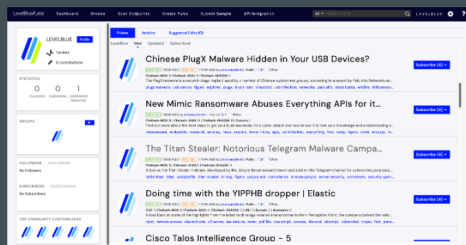
LevelBlue Labs OTX

LevelBlue Labs Open Threat Exchange (OTX) (formerly AlienVault OTX) is a free resource for sharing threat data. OTX "delivers community-generated threat data, enables collaborative research, and automates the process of updating your security infrastructure with threat data from any source". (<https://levelblue.com/open-threat-exchange>).

Registration Link: <https://otx.alienvault.com/>

1. Use the **registration link** above to sign up for an LevelBlue/AlienVault account:

The World's First Truly Open Threat Intelligence Community



- ✓ Gain FREE access to over 20 million threat indicators contributed daily
- ✓ Collaborate with over 200,000 global participants to investigate emerging threats in the wild
- ✓ Automatically extract IOCs from blogs, threat reports, emails, PCAPs, and more
- ✓ Submit files and URLs for free malware analysis within LevelBlue Labs OTX sandbox
- ✓ Join and create specialized groups, including private groups
- ✓ Quickly identify if your endpoints have been compromised in major cyber attacks using OTX Endpoint Security™.
- ✓ Synchronize OTX threat intelligence with other security products via DirectConnect API, SDK, and STIX/TAXII

SIGN UP

LOG IN

PLEASE NOTE: this is a separate account from the LevelBlue Community and legacy Open Threat Exchange accounts.



OR

Username

Email

Country

Password

Password must be a minimum 8 characters and contain at least one number

Password Confirmation

Verification

Please solve this puzzle so we know you are a real person

Verify



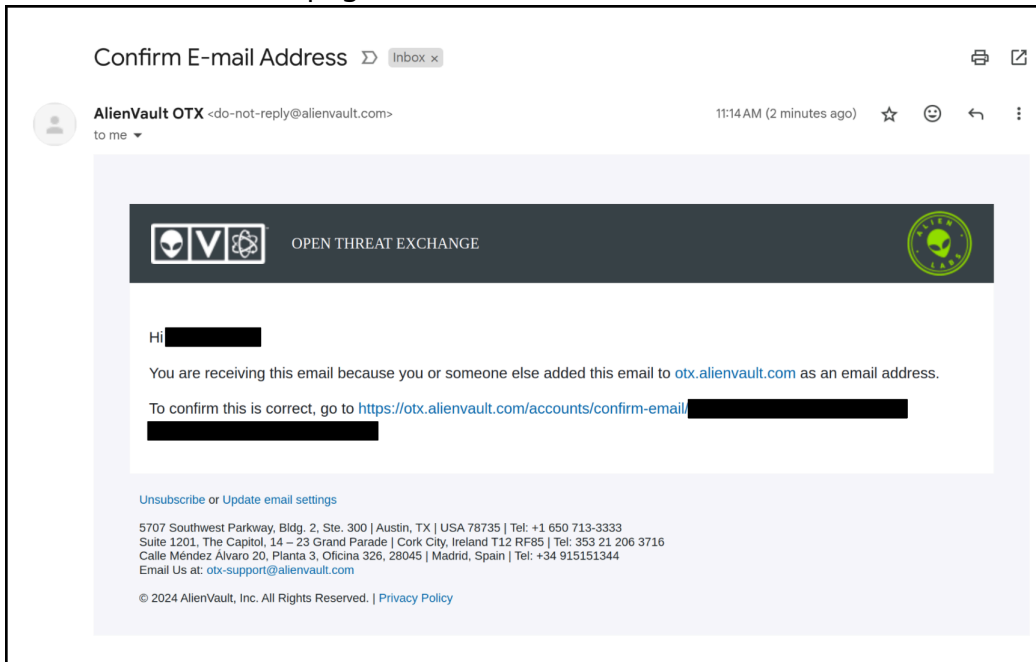
☐ I consent to the processing of the personal data provided above in accordance with and as described in the [Privacy Policy](#).

By registering for OTX, you agree to the terms & conditions outlined in our [End-User Agreement](#).

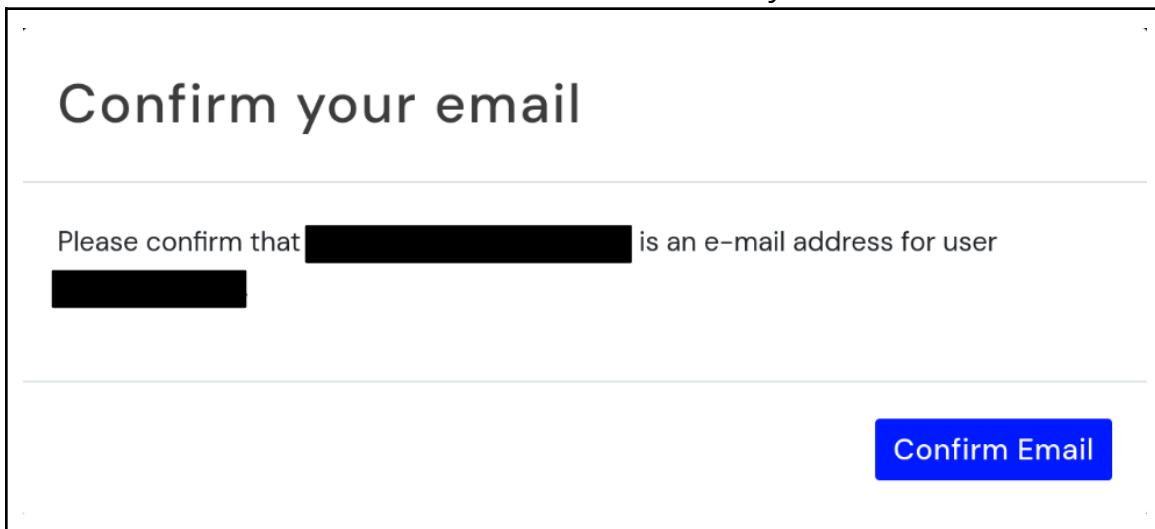
Already have an account? [Log in now](#)

[Sign Up](#)

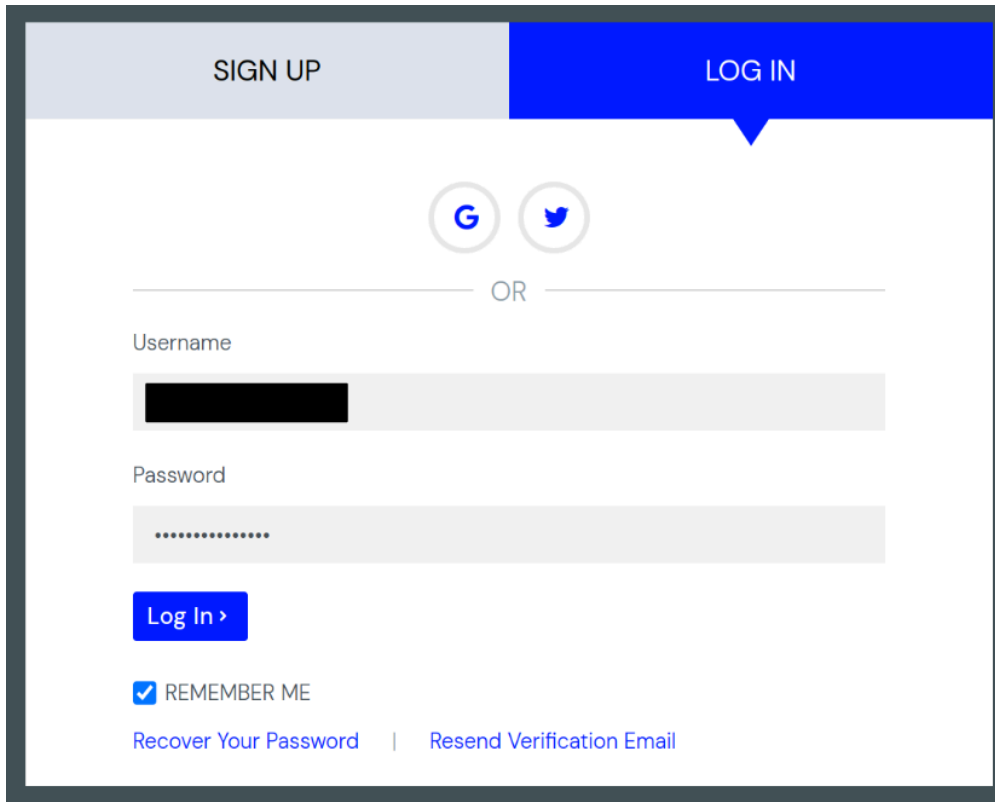
2. You will receive a **confirmation email**. Click the link in the email to go to the account confirmation page:



3. Click the **Confirm Email** button to confirm and activate your account:

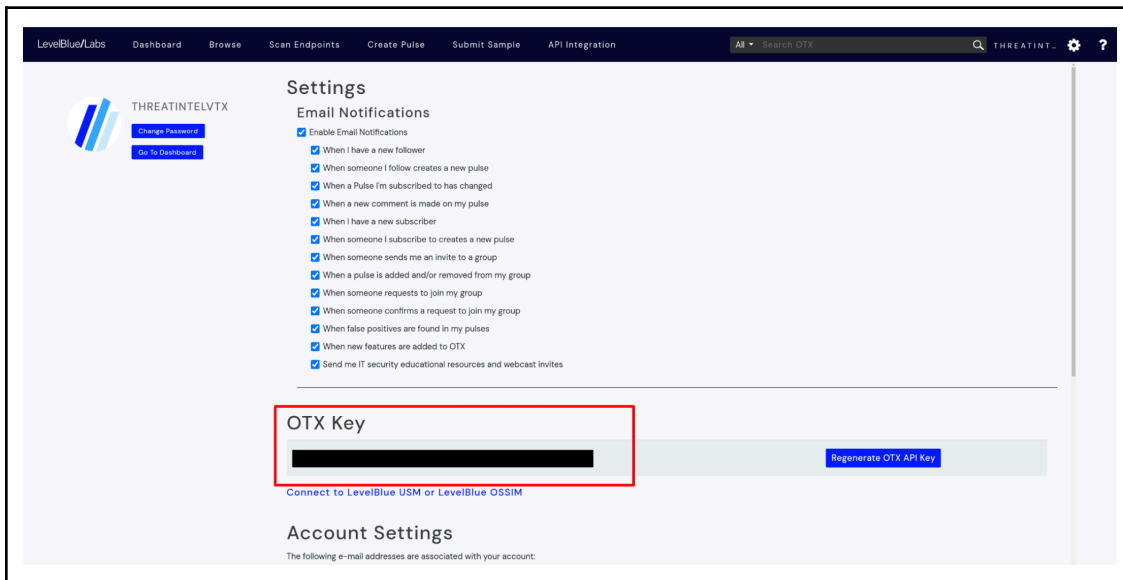


- Once you confirm your email, you should be returned to the LevelBlue signup / login page. Click the LOG IN tab to sign in to LevelBlue:



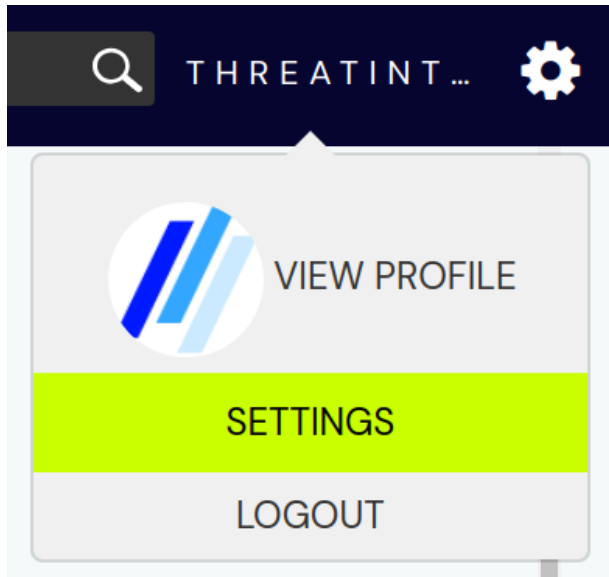
The image shows the LevelBlue login/signup page. At the top, there are two tabs: "SIGN UP" (light blue) and "LOG IN" (dark blue). Below the tabs, there are two circular icons for Google and Twitter. In the center, the word "OR" is displayed. Below "OR", there are two input fields: "Username" and "Password". The "Username" field contains a blacked-out text. The "Password" field contains a series of dots. Below the password field, there is a blue button labeled "Log In >". Below the button, there is a checkbox labeled "REMEMBER ME" which is checked. At the bottom, there are two links: "Recover Your Password" and "Resend Verification Email".

- The first time you log in, you should be taken to the "Settings" page. Your OTX key is available here:



The image shows the LevelBlue Settings page. The top navigation bar includes links: "LevelBlue/Labs", "Dashboard", "Browse", "Scan Endpoints", "Create Pulse", "Submit Sample", and "API Integration". There is a search bar with "Search OTX" and a "THREATINT..." button. The main content area is titled "Settings" and has a sidebar with "THREATINTELVTX" and buttons for "Change Password" and "Go To Dashboard". The "Email Notifications" section has a checkbox for "Enable Email Notifications" which is checked, followed by a list of notification options, all of which are checked. Below this, the "OTX Key" section is highlighted with a red box. It shows a blacked-out OTX key and a "Regenerate OTX API Key" button. Below the OTX key, there is a link: "Connect to LevelBlue USM or LevelBlue OSSIM". The "Account Settings" section is partially visible at the bottom, with the text "The following e-mail addresses are associated with your account:".

6. You can access your settings / key at any time using the menu in the upper right of the screen:

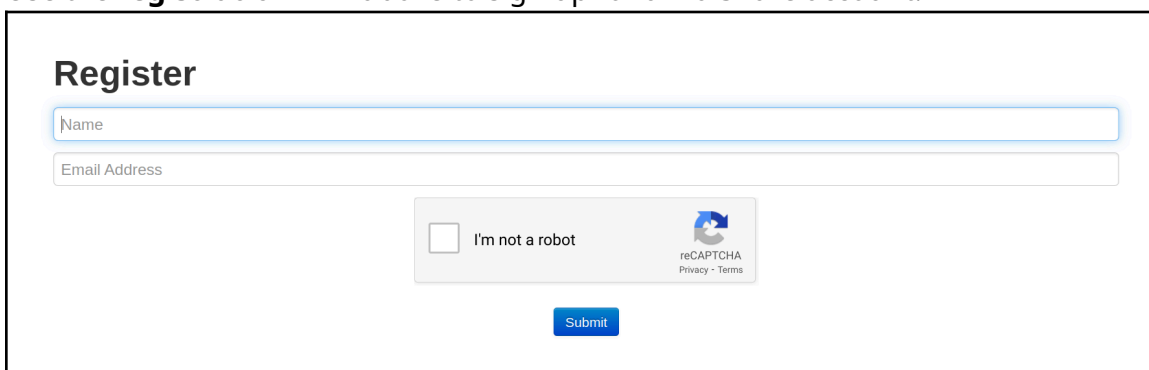


MalShare

MalShare is "...a collaborative effort to create a community driven public malware repository that works to build additional tools to benefit the security community at large." (<https://malshare.com/about.php>). MalShare allows you to download metadata about samples as well as actual files.

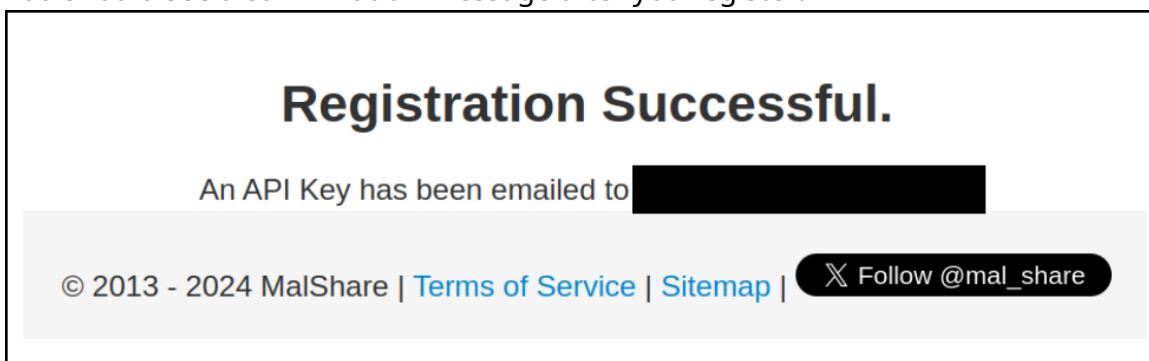
Registration link: <https://malshare.com/register.php>

1. Use the **registration link** above to sign up for a MalShare account:



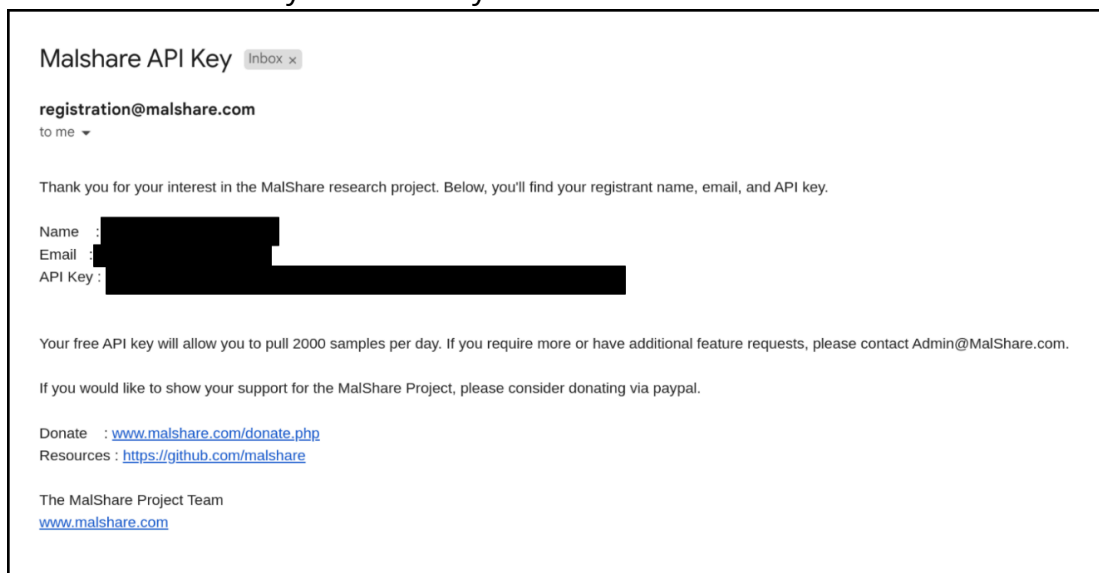
The registration form is titled "Register". It contains two input fields: "Name" and "Email Address". Below these fields is a reCAPTCHA widget with the text "I'm not a robot" and a "Submit" button. The reCAPTCHA logo and links for "Privacy" and "Terms" are also visible.

2. You should see a confirmation message after you register:



The confirmation message is titled "Registration Successful." and states "An API Key has been emailed to [redacted]". At the bottom, there is a footer with the copyright notice "© 2013 - 2024 MalShare", links for "Terms of Service" and "Sitemap", and a button to "Follow @mal_share".

3. MalShare will **email** you an API key:



4. Your API key serves as your login credential to access your MalShare account via their website.

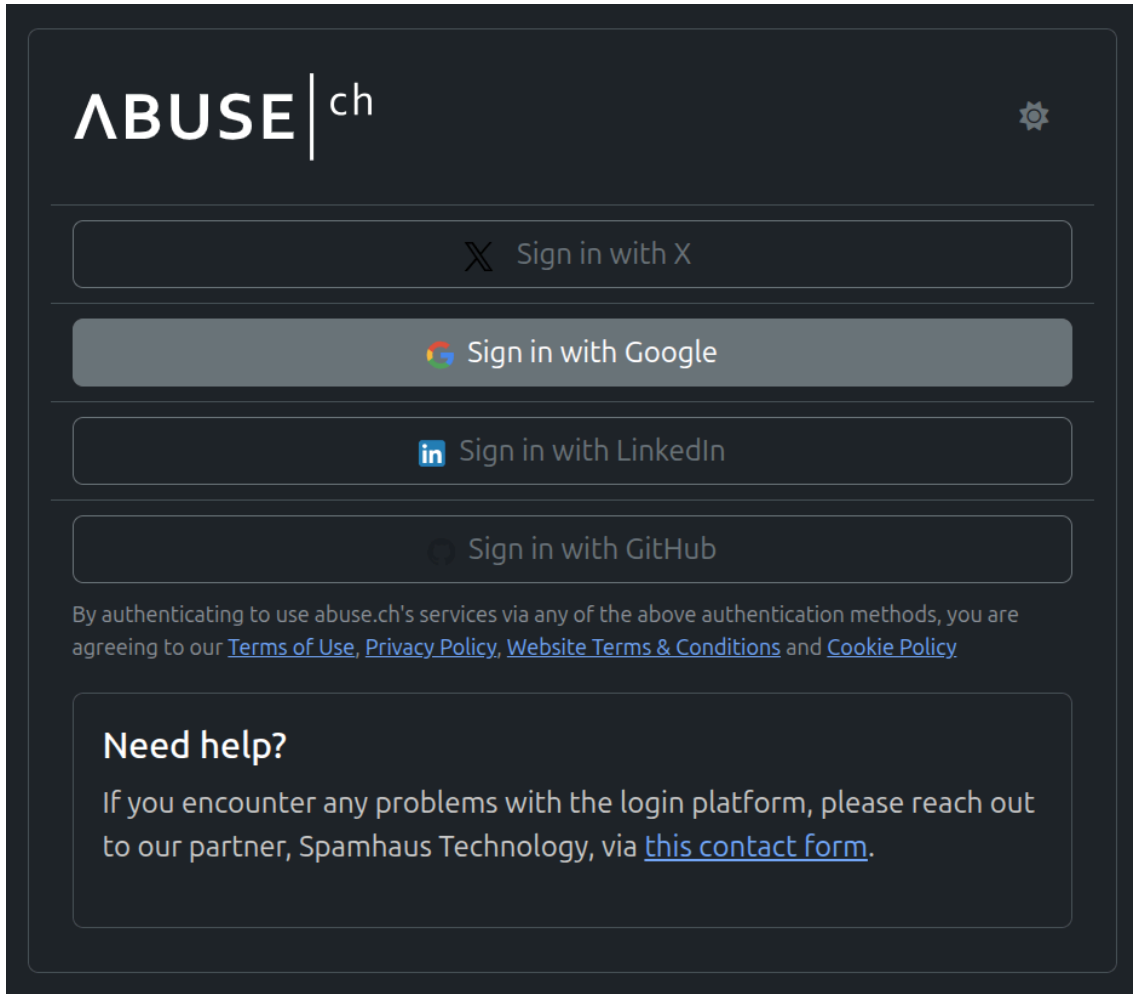
MalwareBazaar (Abuse.ch)

Abuse.ch partners with Spamhaus to "provide the largest, independently crowdsourced intelligence of tracked malware and botnets to the industry". Their offerings include MalwareBazaar, a platform "dedicated to sharing malware samples with the infosec community, antivirus vendors, and threat intelligence providers" (<https://bazaar.abuse.ch/>).

Note: MalwareBazaar / Abuse.ch uses OAuth authentication. You need an existing Google, X, LinkedIn, or Github account to log in to MalwareBazaar.

Registration link: <https://auth.abuse.ch/>

1. Use the **registration link** above to select the account to use for OAuth authentication to MalwareBazaar:



The screenshot shows the login interface for abuse.ch. At the top left is the 'ABUSE | ch' logo, and at the top right is a settings gear icon. Below the logo are four social login buttons: 'Sign in with X', 'Sign in with Google' (which is highlighted in a darker grey), 'Sign in with LinkedIn', and 'Sign in with GitHub'. Below these buttons is a paragraph of text stating that by authenticating, the user agrees to the Terms of Use, Privacy Policy, Website Terms & Conditions, and Cookie Policy. At the bottom, there is a 'Need help?' section with a link to a contact form.

ABUSE | ch

Sign in with X

Sign in with Google

Sign in with LinkedIn

Sign in with GitHub

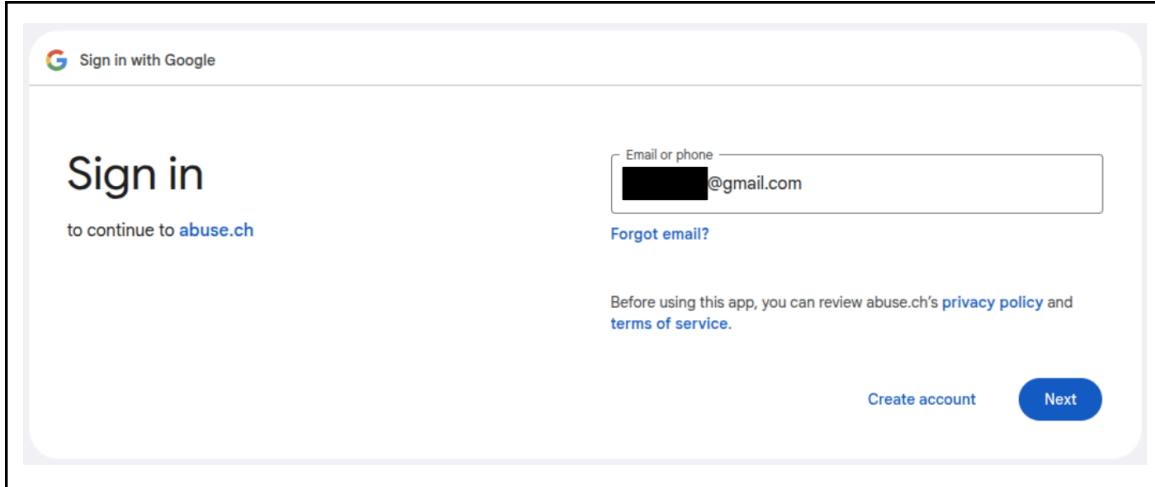
By authenticating to use abuse.ch's services via any of the above authentication methods, you are agreeing to our [Terms of Use](#), [Privacy Policy](#), [Website Terms & Conditions](#) and [Cookie Policy](#)

Need help?

If you encounter any problems with the login platform, please reach out to our partner, Spamhaus Technology, via [this contact form](#).

(We will use **Google** as our example.)

2. Enter the Gmail address to use and click **Next**:



Sign in with Google

Sign in

to continue to [abuse.ch](#)

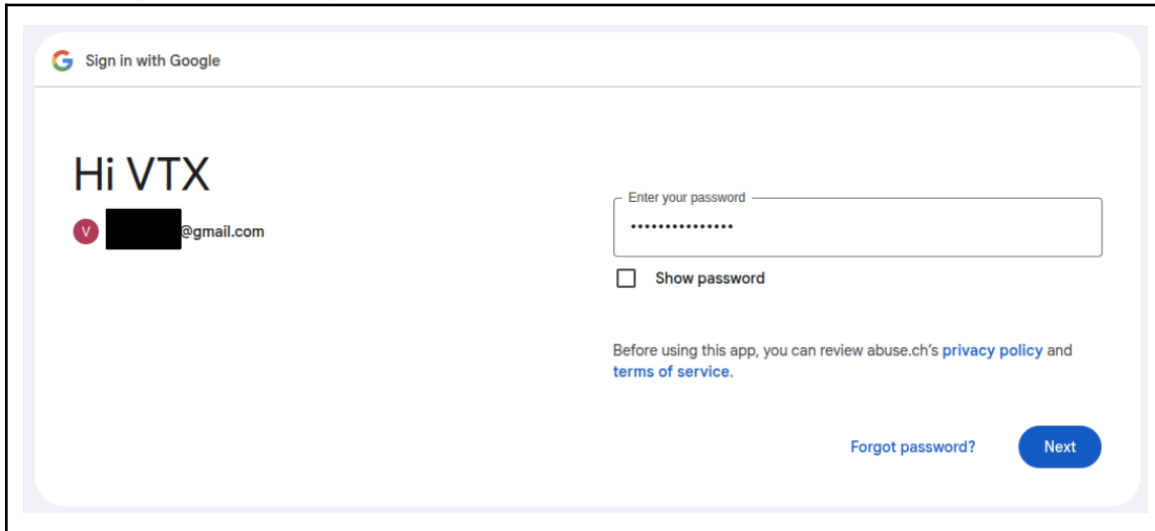
Email or phone
[redacted]@gmail.com

[Forgot email?](#)

Before using this app, you can review abuse.ch's [privacy policy](#) and [terms of service](#).


[Create account](#) [Next](#)

3. Enter the password for your Gmail account and click **Next**:



Sign in with Google

Hi VTX

 [redacted]@gmail.com

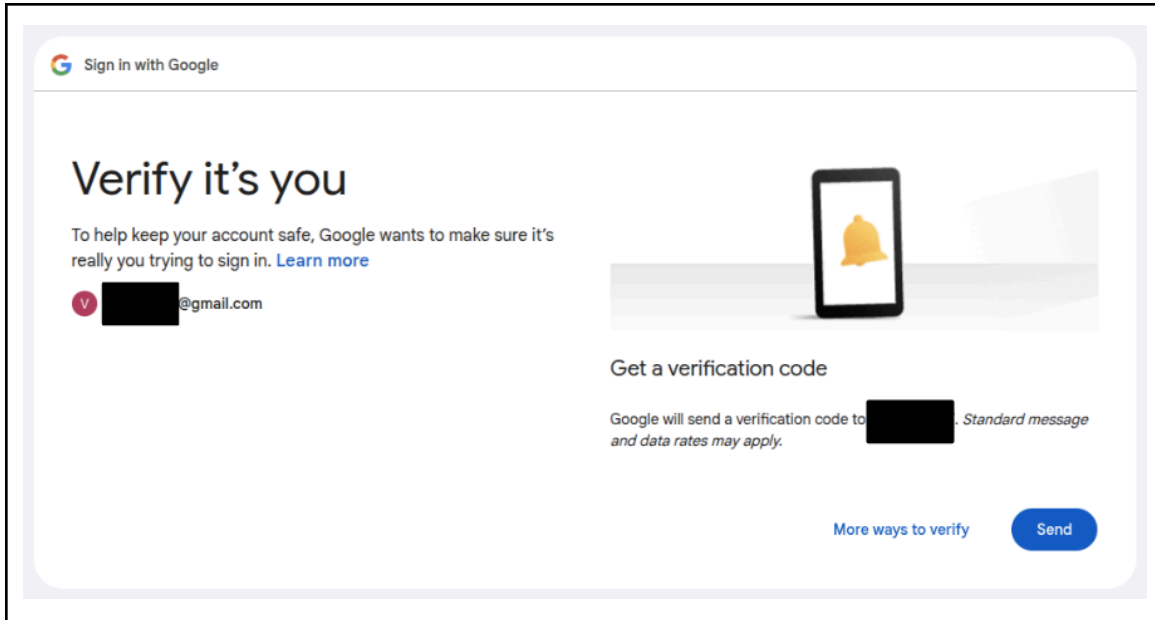
Enter your password
[redacted]

☐ Show password

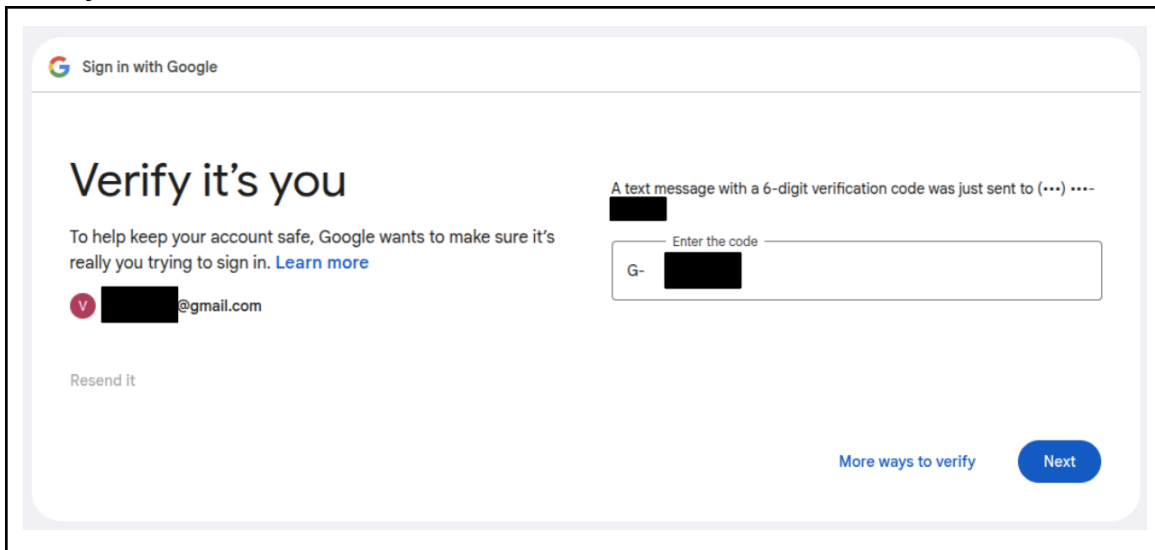
Before using this app, you can review abuse.ch's [privacy policy](#) and [terms of service](#).

[Forgot password?](#) [Next](#)

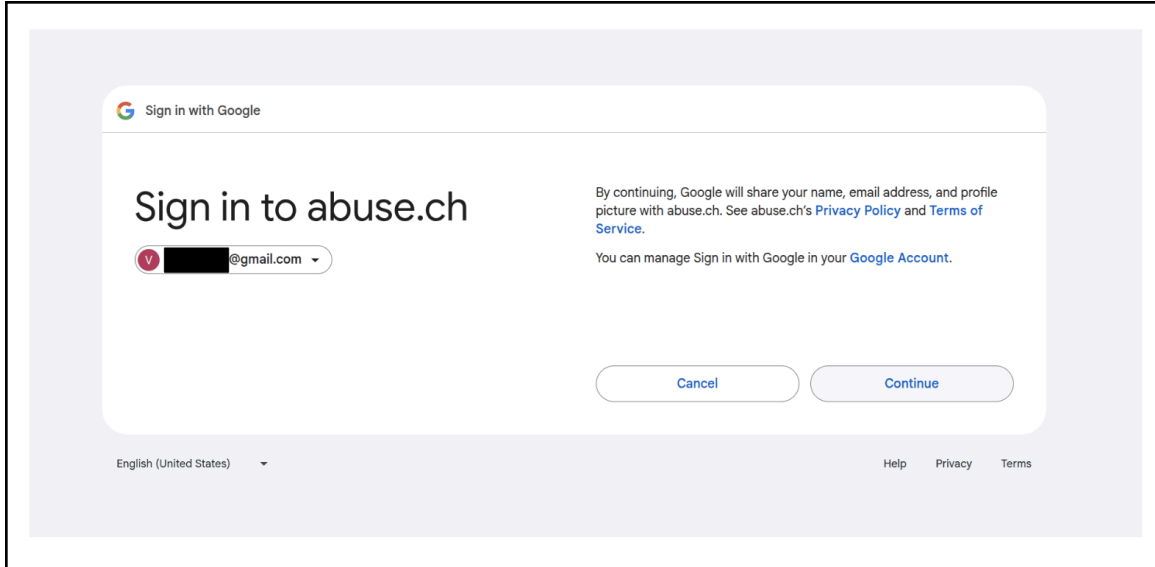
4. If you are prompted to verify your identity, click **Send** to have a one-time code sent to the mobile device associated with your Google account:



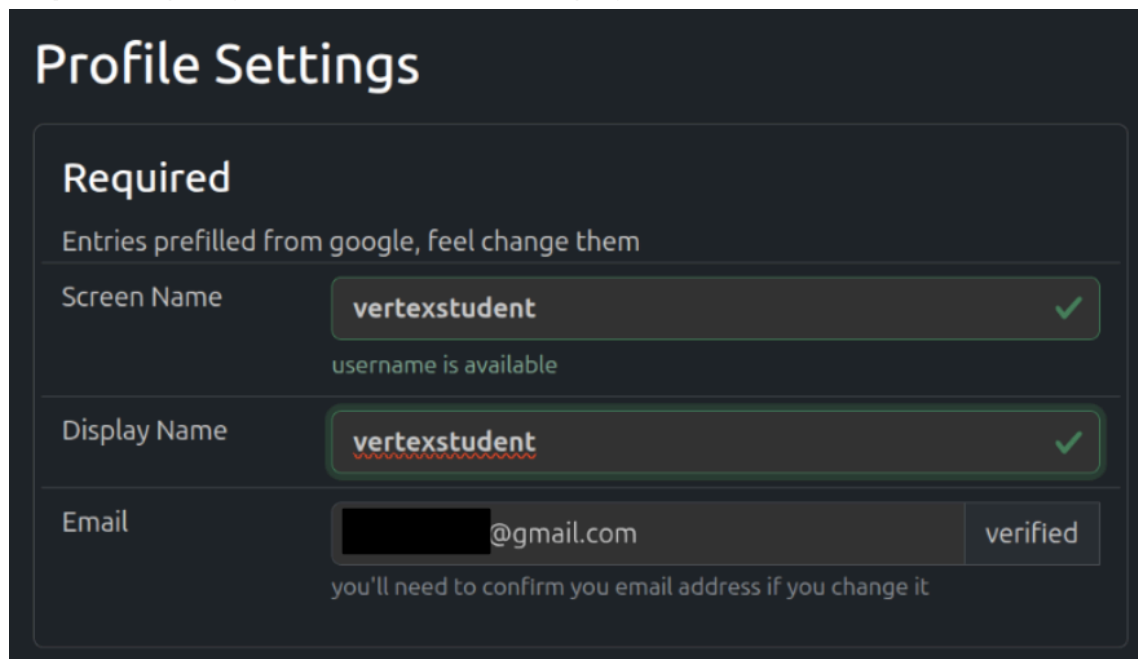
5. Enter your verification code and click **Next**:



6. Review the information that will be shared with Abuse.ch and click **Continue**:

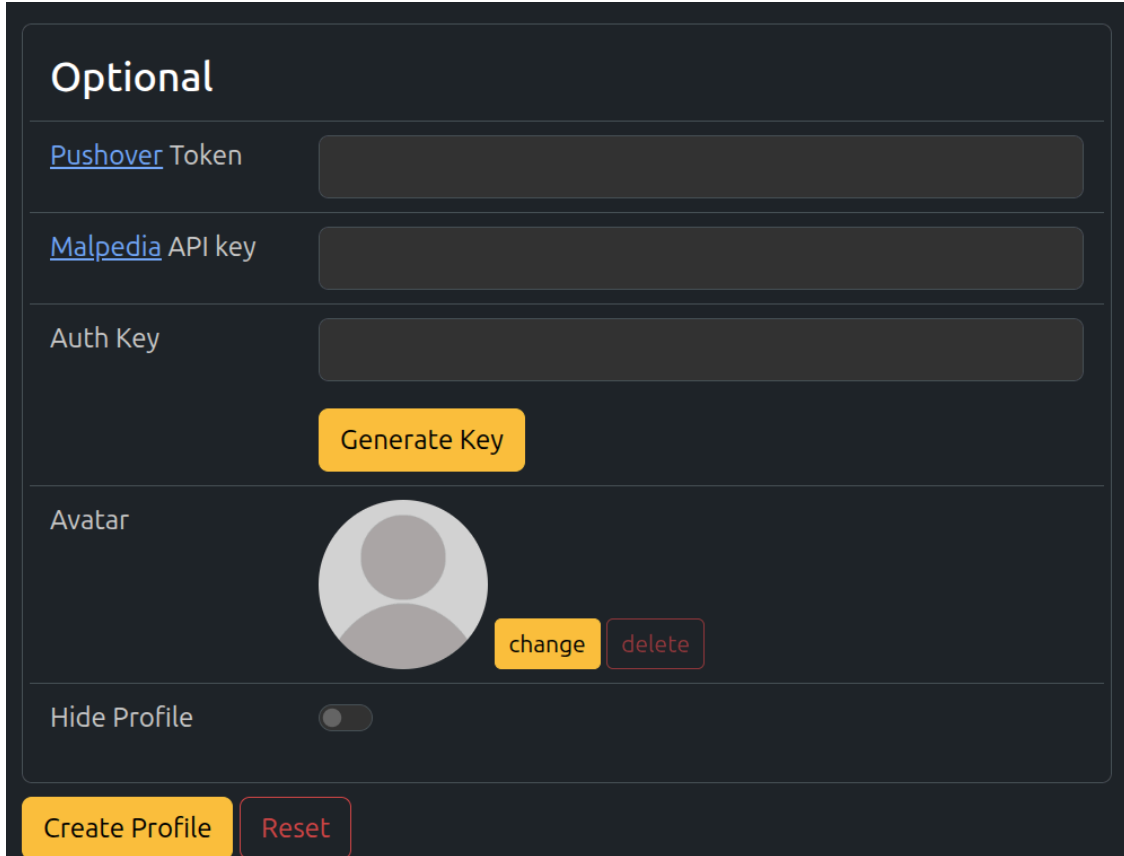


7. You will be redirected to the Abuse.ch profile page. Under **Profile Settings > Required**, specify a Screen Name and Display Name:

A screenshot of the 'Profile Settings' page. The title is 'Profile Settings'. Below it is a section titled 'Required' with the subtitle 'Entries prefilled from google, feel change them'. There are three input fields: 'Screen Name' with the value 'vertexstudent' and a green checkmark, 'Display Name' with the value 'vertexstudent' and a green checkmark, and 'Email' with a redacted email address and a 'verified' status. Below the email field, there is a note: 'you'll need to confirm you email address if you change it'.

Note: make up your own name, we already used "vertexstudent"!

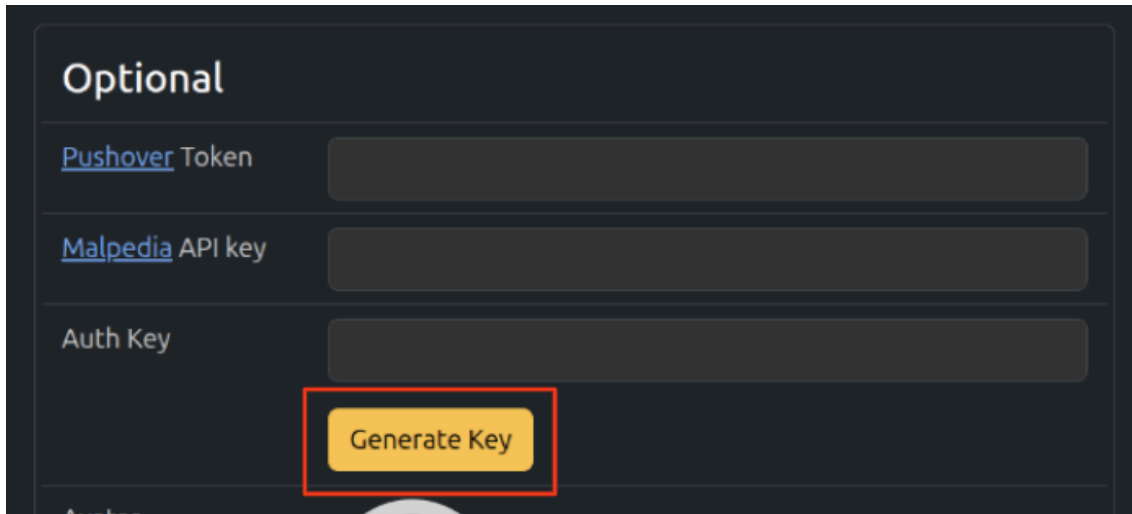
- Under **Profile Settings > Optional**, review the settings and make any changes, if needed. (**Note:** you cannot generate an Auth Key until after your account is created, so ignore the "Generate Key" option.) Click **Create Profile** to create your account:



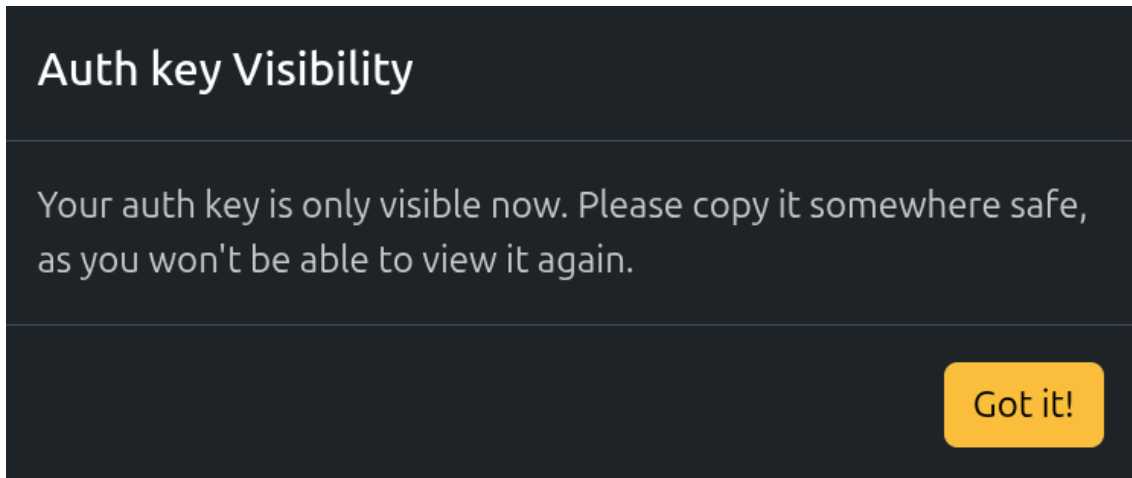
- You should see a "Success" message at the top of the webpage indicating your profile has been created:



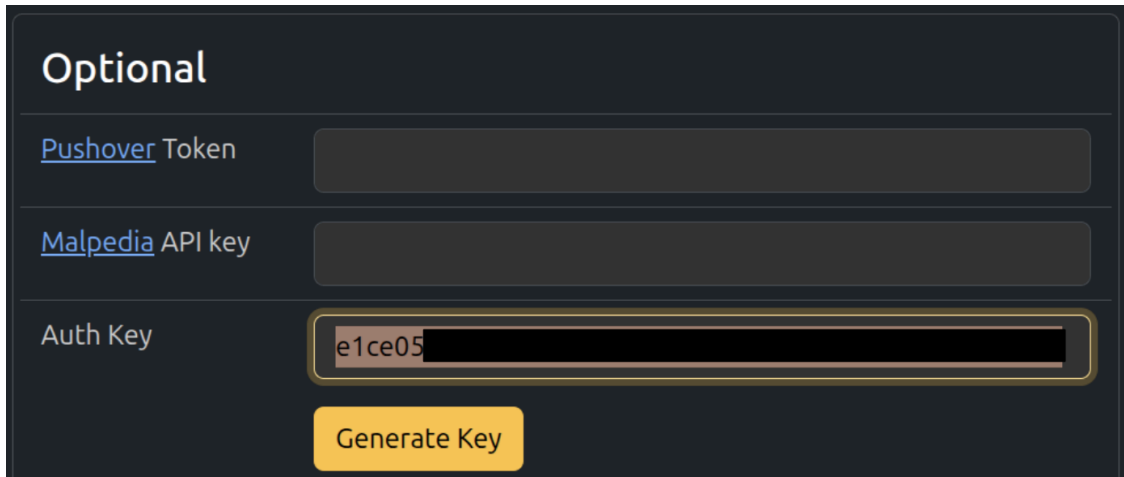
10. After your account has been created, click the **Generate Key** button under the **Optional** settings:



11. You will see a pop-up warning that your auth key is only visible now. Click **Got it!** to acknowledge the message:



12. **Highlight** and **copy** your key. Store it in a safe location for use in Synapse Bootcamp:



VirusTotal

VirusTotal "inspects items with over 70 antivirus scanners and URL/domain blocklisting services, in addition to a myriad of tools to extract signals from the studied content" (<https://docs.virustotal.com/docs/how-it-works>). VirusTotal offers a number of ways to query potentially malicious files, domains, IP addresses, and URLs.

Registration link: <https://www.virustotal.com/gui/join-us>

1. Use the **registration link** above to sign up for a VirusTotal Community account:

Join our community

First name

Last name

Email

Username

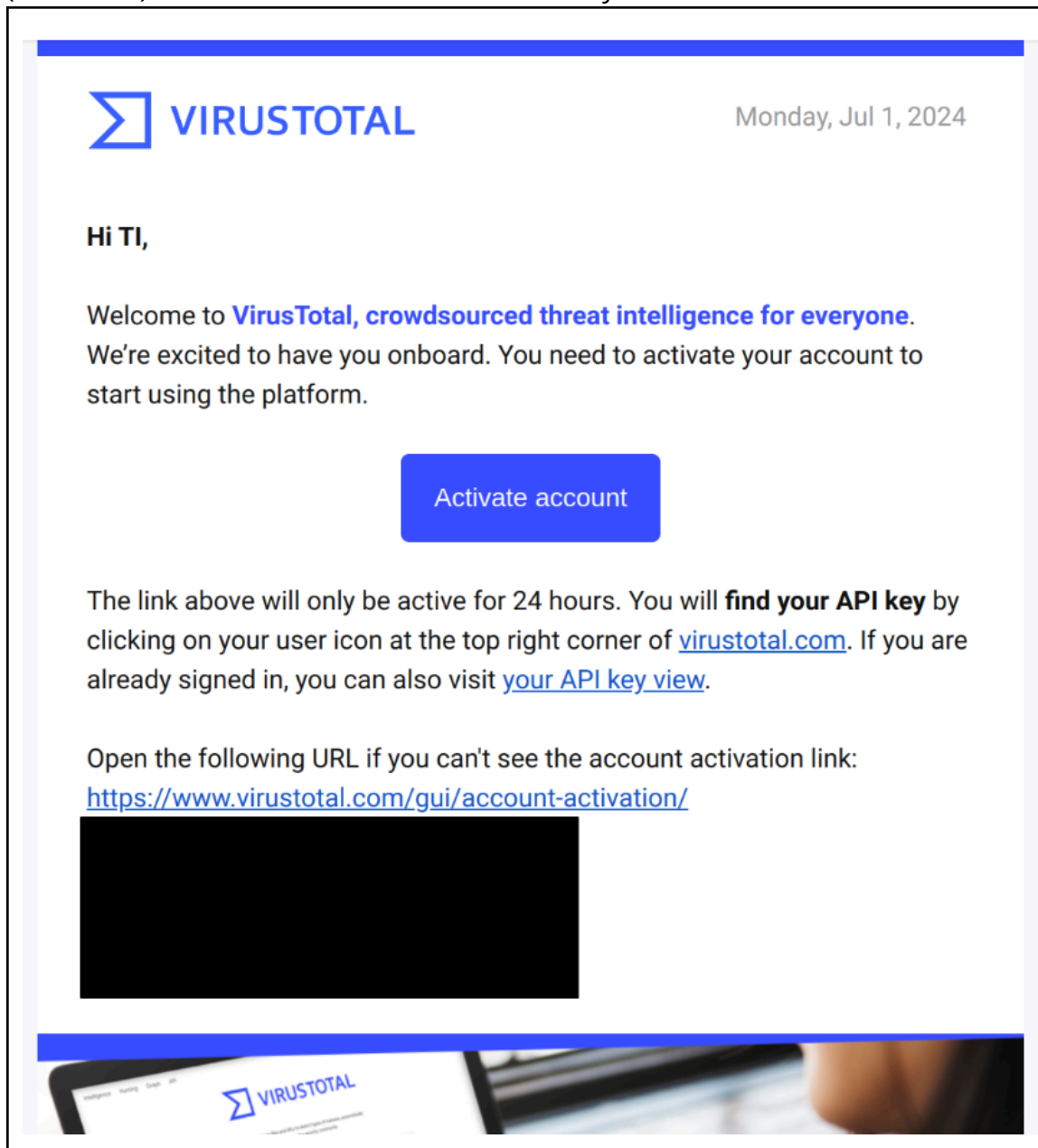
Password

Repeat password

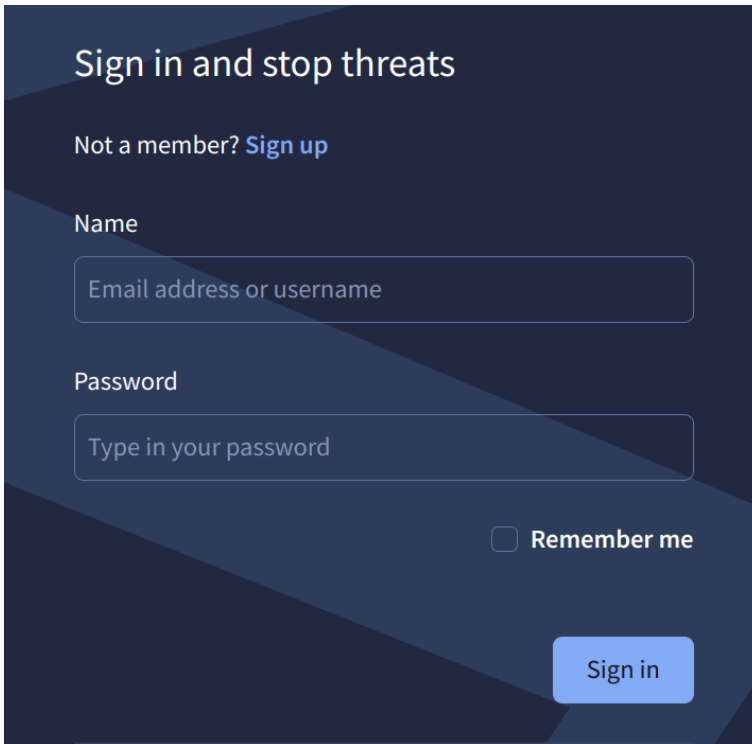
☐ Yes, I have read and agree to the [Terms of Service](#) and [Privacy Notice](#).

Join us

2. VirusTotal will send you a **confirmation email**. Click the **Activate account** button (or the link) in the email to confirm and activate your account:



3. Once you have activated your account, use the **Sign in** link to log in to VirusTotal:



Sign in and stop threats

Not a member? [Sign up](#)

Name

Email address or username

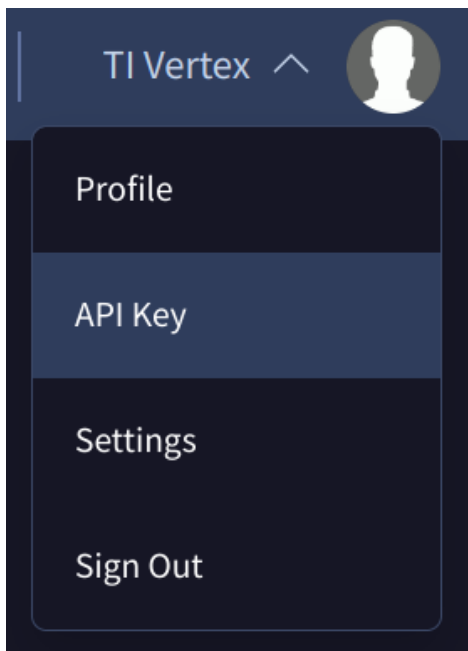
Password

Type in your password

☐ Remember me

Sign in

4. After you log in, access your **API Key** information from your account settings in the upper right corner of your browser:



5. Your API key and quota information can be found at that link:

API KEY

This is your personal key. Do not disclose it to anyone that you do not trust, do not embed it in scripts or software from which it can be easily retrieved if you care about its confidentiality. By submitting data using your API key, you are agreeing to our [Terms of Service](#) and [Privacy Notice](#), and to the **sharing of your Sample submissions with the security community**. Please do not submit any personal information; we are not responsible for the contents of your submissions. [Learn more](#)

API QUOTA ALLOWANCES FOR YOUR USER

Upgrade API

You own a standard free end-user account. It is not tied to any corporate group and so it does not have access to Premium services. You are subjected to the following limitations:

Access level	<div> <div></div> Limited, standard free public API </div> <div>Upgrade to premium</div>
Usage	Must not be used in business workflows, commercial products or services.
Request rate	4 lookups / min
Daily quota	500 lookups / day
Monthly quota	15.5 K lookups / month

Want to learn more about how our intelligence can supercharge your security operations? check our [360 overview brief](#).

Want to upgrade your access? Please do not hesitate to contact us, we'll go the extra mile to make you successful.

API reference

Python client

Golang library

Command-line interface

Go premium

Use in browser

Discover feeds

Other services

Optional Keys

You can **optionally** register for free API keys from the following additional services in order to leverage these Synapse Power-Ups during (or after!) the course.

If you have **existing** keys for any of these services, you may use them.

These API keys are **not required** for Synapse Bootcamp, and we will **not** cover registering for, configuring, or using these services in class. However, the Power-Ups are available to you through the demo instance of Synapse you will receive for the course. If you want to test them out, you can!

Company / Service	Account Registration Site
Apollo (business and contact data)	https://www.apollo.io/signup/
Github (Personal access token) (retrieve and model information related to Github repositories and issues)	https://github.com/signup (Once registered, log into your account and select settings > Developer settings , and create a Personal access token using Tokens (classic))
GreyNoise (Community API) (distinguish irrelevant or benign network activity from potentially malicious activity)	https://viz.greynoise.io/auth-required
HybridAnalysis (static and dynamic malware data)	https://hybrid-analysis.com/signup
SSLMate CertSpotter (SSL transparency data)	https://sslmate.com/signup?for=ct_search_api
URLScan (scan / obtain scans of URLs, associated files, etc.)	https://urlscan.io/user/signup