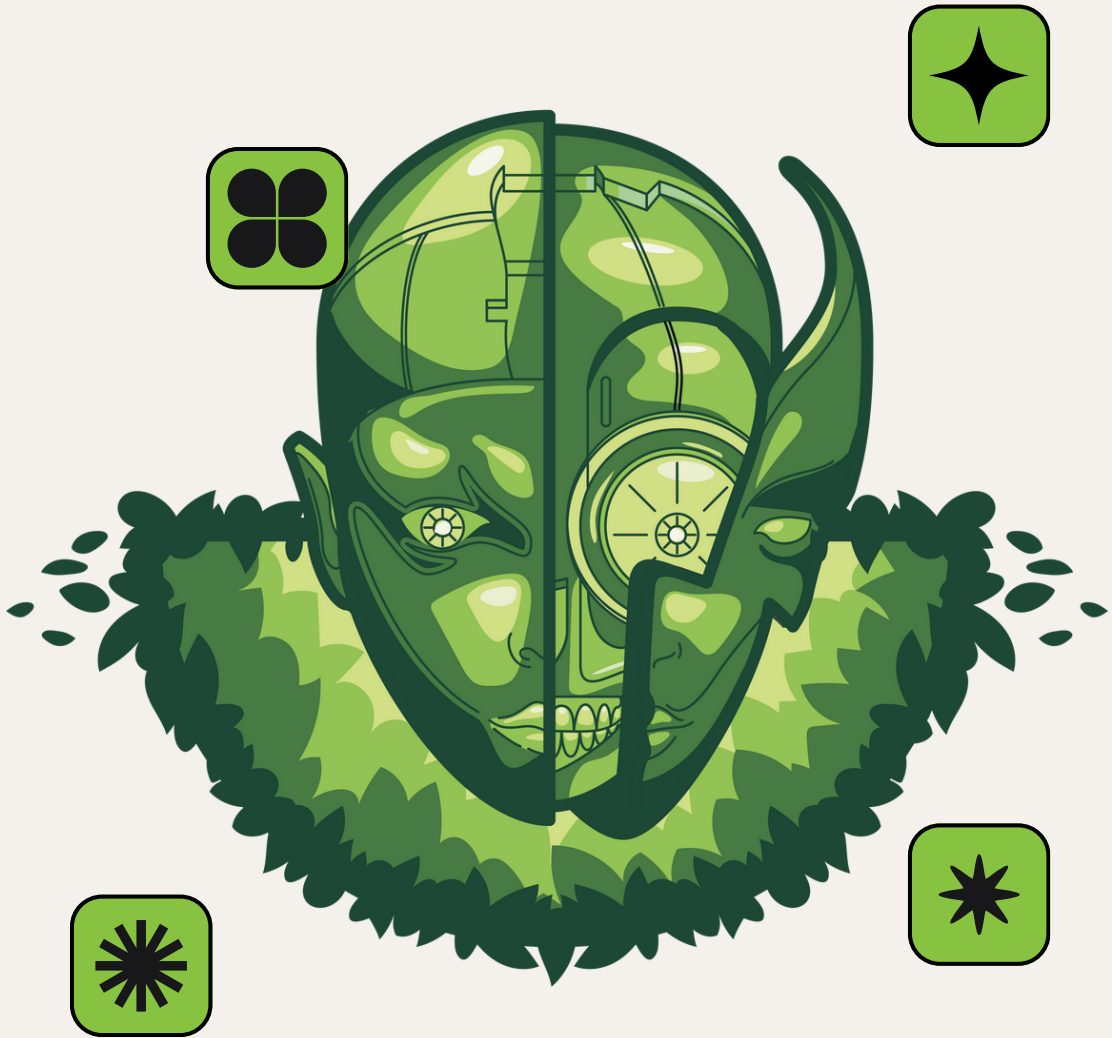# Competitions

Guide

Introduction

2437. Humanity now faces an entirely new threat: artificial intelligence. Through genetic mutations and GMOs, AI has gained total control over flora. Shortly after the first war, humans found themselves imprisoned, and deprived of all freedom and natural light, which ChlorophyllAi selfishly hoards to enhance its power. Humanity then divided into five castes:

The Justs, struggling with moral dilemmas, striving to elevate communal morality. The Altruists, extending helping hands to those in need, embodying selfless compassion. The Bleeding-Edges, masters of advanced technologies and possessors of crucial knowledge about plant capabilities, with some delving into trans-humanist quests. The Mercenaries, formidable renegades operating on the fringes, motivated solely by greed. Finally, the Erudites, intelligent and cultured, aiming to shape communal politics and elevate collective intellect.

Amidst this social turbulence, a three-day battle of intelligence and skills rages on. Gather your teams, embrace your caste, and sharpen your computer skills, for the fate of humanity rests on your shoulders. The war against AI has begun, and only the most skillful will emerge victorious.

Database

To overcome the growing threat of ChlorophyllAI, you will need much more than just a few computers. Armed with paper and pencil, you must demonstrate your intellectual superiority against the photosynthetic invader. This archaic trial will test your raw knowledge and logical reasoning.

Show the limits of the vegetal brain using tools of algorithmics, computability, cryptography, and more. Ranging from the simplest to the most complex, these problems will put your talents to the test.

Required materials:

- Your own laptop

Technologies:

- A PostgreSQL client software

3 HOURS

2 PEOPLE

High Performance Computing

There was a time when certain calculations were too robust for traditional CPUs. To successfully perform them, we turned to a piece of technology known as GPU. These devices could, among other things, process hundreds of data so quickly that many utilized them. Today, we will use them to learn more about our enemy. May the fastest prevail.

Required materials:

- No materials required

Technologies:

- Rust and WGSL

3 HOURS

2 PEOPLE

Capture The Flag

ChlorophyllAi relies on large and complex infrastructures to operate, but an ally of the Cutting-Edges has informed us that they are fragile. You are certain that vulnerabilities exist and are determined to exploit them to extract information from ChlorophyllAi. Will you use your senses to find them all?
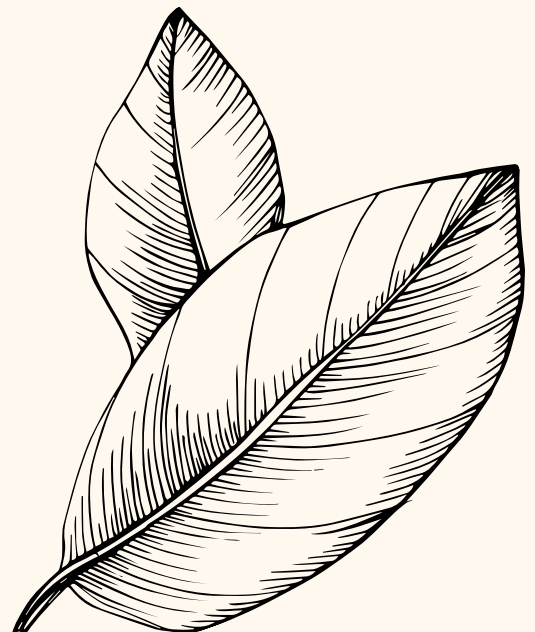
Required materials:

- Your own laptop

Informations:

- Contains Pwning and Web challenges

3 HOURS

2 PEOPLE

Art Forgery

Because of the constant shadow that is the after-war, art forgers have become the unexpected guardians of beauty and hope. Within the conflicts ridden streets, their creations offer the idea of a world made of colors and peace in a universe darkened by grayness.

Required materials:

- No materials required

Technologies:

- HTML and CSS

3 HOURS

2 PEOPLE

Chatbot

Since the arrival of ChlorophyllAi, new pathogenic species have exploded. The medical teams, for what remains of them, are overwhelmed and insufficient to meet the demand. To reduce the workload on their shoulders, you will need to create a simple chatbot aimed at identifying health issues based on symptoms. This automated triage will redirect patients to the right resources and thus avoid overloading an already strained system.

Required materials:

- Your own laptop

Technologies:

- In your language of choice (template python and javascript provided)

Hint:

- It is recommended to get used with a chatbot framework

3 HOURS   2 PEOPLE

Debugging

Certainly, nothing is perfect. Your societal organization is not immune, nor is the software infrastructure behind it all. It's a matter of nitpicking, quite literally, and patching all these vulnerabilities that could be exploited by ChlorophyllAi against you.

Required materials:

- Your own laptop

Technologies:

- Docker

- Bash , PHP, Ruby, JavaScript, Rego, Python, C/C++, Java and Go.

3 HOURS   2 PEOPLE

Modular Development

Do you know your code well? You'll find out in this competition! You'll face a monolith impossible to learn in three hours and will have only your computer and determination to help you. You must learn to treat your codebase like a database and query it to understand it... or fail miserably in the attempt.

Required materials:

- Your own laptop

Technologies:

- GToolKit software
- Pharo-Smalltalk (tutorial)

3 HOURS   2 PEOPLE

DevOps

To manage their operations, Humanity requires a vast infrastructure that runs continuously. You will need to learn to interact with it in this 3-hour competition before the plants take over.

Required materials:

- Your own laptop

Technologies:

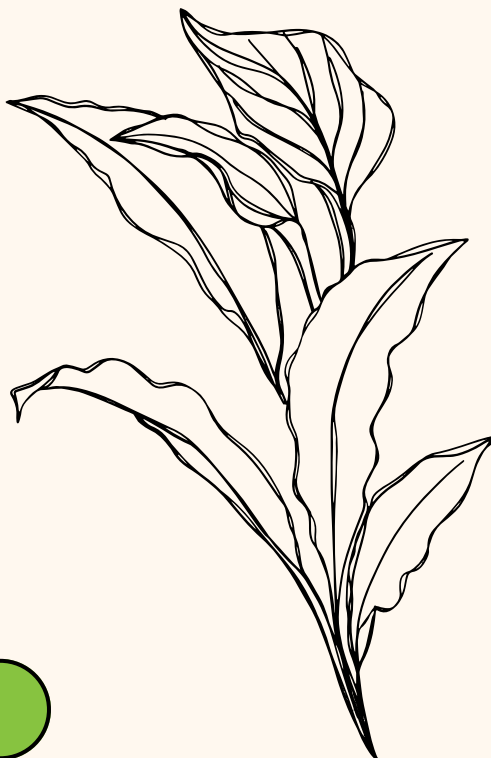- Rust, Docker, Kubernetes and Linux

3 HOURS

3 PEOPLE

Gaming

In addition to extraordinary computer knowledge, the resistance will also need runners. These action-oriented individuals are tasked with running under the heat of action to carry out any necessary tasks directly in the field. These people will require exceptional reflexes, unparalleled determination, unwavering composure, and a sharp team spirit.

If you believe you possess these qualities, come challenge yourself in this trial and enter into legend.

Materials required:

- No materials required

3 HOURS

2 PEOPLE

Info-theo

To overcome the growing threat of ChlorophyllAI, you will need much more than just a few computers. Armed with paper and pencil, you must prove your intellectual superiority against the photosynthetic invader. This archaic trial will test your raw knowledge and logical reasoning.

Demonstrate the limits to the vegetal brain using tools of algorithmics, computability, cryptography, and more. Ranging from the simplest to the most complex, these problems will put your talents to the test.

Required materials:

- Pens
- Eraser
- Calculator (non-programmable)
- Hand-written, one-sided cheat-sheet

3 HOURS

2 PEOPLE

Internet Of Things

The Ancient Civilization once possessed a global information exchange platform known as the Internet. Its growth seemed unstoppable, and soon came the day when it could be harnessed through microcontrollers the size of a hand. These later became one of the preferred modes of transmission for ChlorophyllAi. It is time to take back control. You must infiltrate these machines, discover the secrets they hold, and expose them to the light of day for the salvation of humanity.

Required materials:

- Your own laptop
- Binwalk or another extraction software
- A C decompiler (Ghidra recommended)
- Cybersecurity tools (Kali Linux VM highly recomended)

Recommended:

- C, PHP, Python

3 HOURS

2 PEOPLE

Extreme Programming

Internal studies have proven that the victories of ChlorophyllAi are partly due to the intense conditions our ancestors faced. To defeat it in the upcoming Grand Battle, there is only one solution: beat it at its own game. In order to better prepare against the invading enemy, action must be taken, and quickly. It's all in the name—you will need to outsmart the code and logics of ChlorophyllAi under extreme conditions.

Required material:

- No material required

Technologies:

- Java, JavaScript or Python (Your choice)
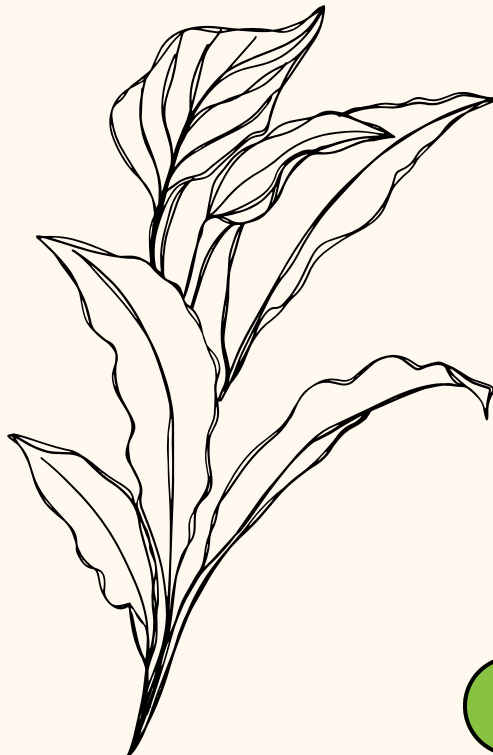
3 HOURS

2 PEOPLE

Team Software

ChlorophyllAi is everywhere. In order not to reveal your attack plans, communication must be limited. In this challenge, discussions will only be allowed at the beginning and end of the competition. In the meantime, it's code, code, code, to arrive at a complete – and functional – application.

Required material:

- No material required

Technologies:

- TypeScript or JavaScript, NestJS, React, GraphQL
- Docker

3 HOURS

3 PEOPLE

Triathlon Development

The Council of Sages has gathered to create a brand-new challenge. If you are brave, come and test your pure programming talents. These skills will be put to the test in this three-part consecutive competition that will require intense development and discipline.

Only the first step of this tripartite competition shall be initially revealed. To proceed to the subsequent stages, you will need to find the key of the key of the preceding stage.

Required materials:

- Your own laptop

Technologies :

- C#, C++, C, Java or Python (Your choice)

3 HOURS

2 PEOPLE

Operating Systems

We have discovered a file crawler in a mysterious PC containing an unfamiliar OS. The resistance believes that it could contain crucial information against the green threat. Therefore, your mission is to interact with it and extract all its secrets. But be careful: who knows what defence mechanisms this device may have?

Required materials:

- No required materials

Technologies:

- C, C++, Rust, Python, .Net et Java (your choice, base code in C and Rust provided)

3 HOURS   2 PEOPLE

Contact Us

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