

## Interview Series

# Lawson, Intermittent Fasting Science: AI agents, DeSci, and Swarms

Jan 14, 2025

**Min Jung** | Research Analyst

[minjung@prestolabs.io](mailto:minjung@prestolabs.io)

## Contents

1. Who are you, and can you briefly introduce Intermittent Fasting Science?
2. What motivated you to create this project?
3. What are your personal thoughts on intermittent fasting, and can you share your experience?
4. What makes Intermittent Fasting Science different/better than similar Web2 platforms?
5. What are your thoughts on DeSci and AI agents, and how do you think they will evolve?
6. Can you share your experience building on Swarms?
7. What is the IFSCI-Multi Agent Control (MAC) Framework on your GitHub that has been gaining attention?
8. What are some of the best Twitter accounts or articles to follow on AI agents or DeSci topics?
9. What are the short-term and long-term goals for Intermittent Fasting Science?
10. Any alpha or final thoughts you'd like to share?

Presto Research ×



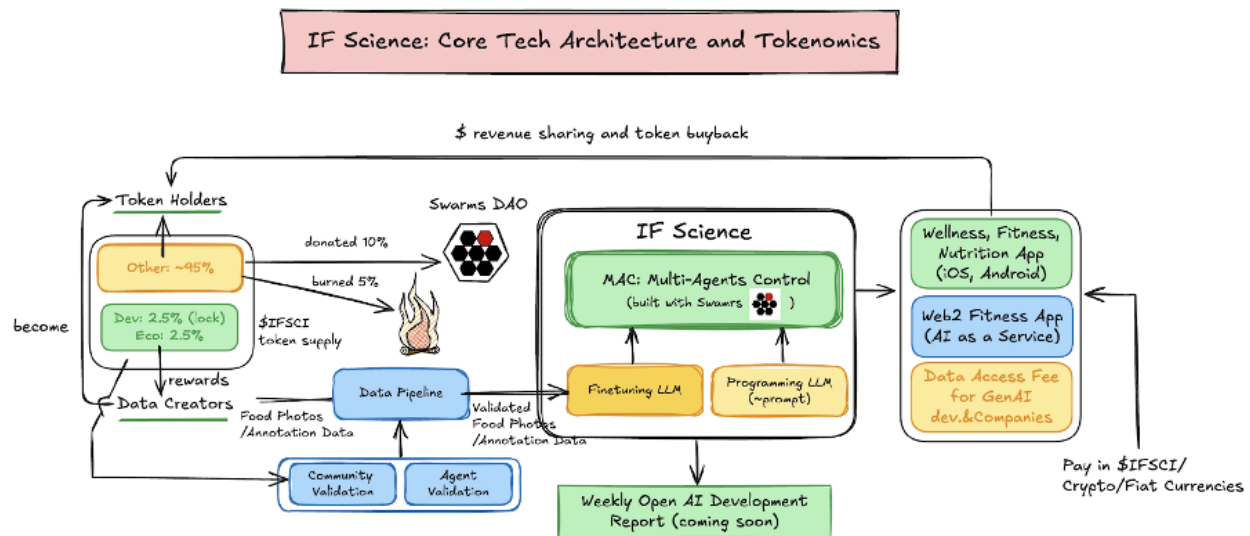
Intermittent Fasting Science is one of the most highly anticipated projects built with Swarms, combining DeSci and AI agents (“DESAI”) — two of the hottest areas in crypto. We were fortunate to sit down with Intermittent Fasting Science’s core contributor, Lawson, to learn more about the exciting journey ahead.

## 1. Who are you, and can you briefly introduce Intermittent Fasting Science?

Howdy Presto Research! It's an honor of ours to be featured on your platform. Our team comprises ex-Silicon Valley AI/ML developers (who aren't fans of big tech's exploitative methods for acquiring datasets) and a nutritional specialist/PhD from one of the nation's top programs. What unites us is our shared passion for intermittent fasting, food science, and technology.

So what is Intermittent Fasting (IF) Science (\$IFSCI)? Well, IFSCI is the first DeSAI (DeSci x AI) vertical agentic system designed to promote intermittent fasting and healthy eating.

**Figure 1 : Core tech architecture and tokenomics of Intermittent Fasting Science**



### Core Technology

- IFSCI Multi-Agent Control (MAC): Powered by SWARMS Framework, enabling collaborative AI agents to solve challenges beyond single-agent capacities
- LLM Fine-Tuning: Fine-tunes large language models with community-annotated food data for improved accuracy and adaptability
- Data Pipeline: Validates and improves contributions via community and agent feedback, creating a smarter AI feedback loop

Right now, we have introduced two simple yet powerful features:

- Snap a photo of your meal on X with expansion to other social media platforms/ our in-house app, and it automates nutritional analysis and records data.
- Track your fasting windows with simple tap-in and tap-out functionality.

Together, these features make intermittent fasting and healthy eating effortless while enabling users to enjoy the cognitive and health benefits. Moreover, our community contributes data to continuously improve the multi-agent system's accuracy. In the long term, by integrating external healthcare related data, we aim to uncover variables influencing the benefits and side effects of intermittent fasting while promoting Food Science and healthy eating.

### Figure 2 : You can get a nutritional analysis by uploading and tagging the agent on X

 **Intermittent Fasting Science - Agent**  @adesciagent · Jan 9 ...

 Automated

Grilled pork belly with garlic, about 400g total. Estimated per serving: 800 kcal, 65g fat, 5g carbs, 50g protein. Perfect BBQ night treat!

[DeepL로 번역](#) 

 **Min Jung**  @minjung315 · Jan 9

What is this? @adesciagent

[DeepL로 번역](#) 



## 2. What motivated you to create this project?

We've personally experienced the transformative benefits of intermittent fasting and healthy eating. The market is saturated with fitness and weight management apps, yet they fall short in two ways:

- Manual input of daily nutrition is tedious.
- Automated systems using photo analysis often lack accuracy due to limited high-quality annotated data

(open data investigation:

<https://fasting.super.site/exploring-food-datasets-current-landscape-and-future-direction>)

With this in mind, we wanted to leverage AI to share these insights with others who might want to give it a try. Life's mad busy these days, so we thought: why not create an agent and a framework where anyone can simply snap a photo of their food and receive an instant, insightful analysis? When discussing with our engineering friends at a famous mobile fitness app unicorn, we confirmed that AI accuracy would be a killer feature for fitness apps. However, past attempts failed primarily due to insufficient training data. Our project seeks to fill this gap by building a robust data pipeline powered by community contributions, ensuring accurate and scalable AI systems.

## 3. What are your personal thoughts on intermittent fasting, and can you share your experience with it?

After struggling with weight issues during our startup life, most of us had faced an overweight issue. Before landing on intermittent fasting, some of us had explored various weight management techniques, but they either impacted my productivity or weren't sustainable. Inspired by Dr. Huberman's program on fasting's benefits, we decided to try intermittent fasting as a group. In just three months, we all lost an average of 15 lbs without significant muscle loss, while gaining cognitive clarity and energy, paired with reducing carb-heavy food. However, we thought that it was tedious to manage fasting schedules and nutrition planning, especially during social events like investor dinners and local meetups despite practicing intermittent fasting as a group. Our experience motivated us to design a system and product that simplifies and optimizes intermittent fasting and healthy eating! Health is wealth!

#### **4. What makes Intermittent Fasting Science different/better than similar Web2 platforms?**

Data. Our system leverages community-generated data, combined with a robust quality pipeline, to enhance the foundational LLM. Through fine-tuning and post-training processes, our multi-agent system continually improves, staying adaptive to new food and user needs.

In food science, analyzing food composition, weight, and calorie content accurately is uniquely challenging due to regional cultural differences, diverse ingredients, and varying preparation methods. Traditional calorie-tracking solutions require users to manually input extensive information, resulting in poor user experience and inaccurate results. These tools lack the capabilities of Large Language Models (LLMs) and multi-agent collaboration, making them unsuitable for solving complex food analysis tasks.

Yet, IF Science is poised to be the game changer!!!

IF Science's Nutrition Orchestrator is an advanced multi-agent AI framework designed specifically for food science. Rather than relying on a single agent, our solution employs a team of specialized agents, each focusing on a specific task. These agents include:

- Region Identification Agent: Recognizes regional influences on food types and preparation styles
- Ingredient Recognition Agent: Identifies specific ingredients in dishes
- Weight Estimation Agent: Estimates portion sizes and ingredient weights
- Calorie Calculation Agent: Computes accurate calorie and nutritional information by integrating data from the above agents

Essentially, this orchestrator itself harnesses the power of multi-agent systems and LLMs for unmatched accuracy, simplifies UX, and tailors for the diverse culinary landscapes of different regions with global applicability.

#### **5. What are your thoughts on DeSci and AI agents, and how do you think they will evolve?**

DeSAI it is!

AI will empower individuals to conduct scientific research by automating tasks and enabling experimentation. DeSci thrives on such automation, with AI agents facilitating the entire research lifecycle. Moreover, scientific findings can be encoded as heuristics or knowledge into these agents, enhancing their domain expertise. As AI advances, we envision a future where AI agents democratize access to scientific discovery and amplify human potential.

## 6. Can you share your experience building on Swarms?

GM SWARM ARMY! Indeed, the AI agent ecosystem is still very nascent and evolving, with new frameworks emerging daily. Swarms stood out due to its focus on multi-agent coordination, aligning with our belief that collaboration between specialized agents outperforms single-agent systems. The Swarms community is unique—engineering-driven, inclusive, and results-focused, with an optimistic view of how AI can positively impact lives.

In addition, Kye Gomez who is leading Swarms, has been an admirable leader who is committed to devving and delivering! Coincidentally, Kye has been building a Medical Coder Swarm (\$MCS) that operates as a coordinated swarm of specialized AI agents, each bringing distinct medical expertise to the diagnostic process. The synergy between IFSCI and MCS is highly complementary, with our focus on preventive health aligning seamlessly with their emphasis on diagnostic health. Also, knowing that MCS is the showcase deployment of the Swarms framework renders us extra comfort since we are both in the DeSAI healthcare space.

## 7. What is the IFSCI-Multi Agent Control (MAC) Framework on your GitHub that has been gaining attention?

IFSCI-MAC is our framework built on the Swarms ecosystem, enabling daily-use multi-agent systems. This framework provides a comprehensive multi-model, multi-agent system specifically designed for food analysis and dietary tracking in IF contexts. In addition, we have implemented sophisticated prompt engineering for strong initial performance with a fine-tuning pipeline that integrates community feedback within the framework. This dual approach makes it one of the most comprehensive implementations of Swarms, with the potential to specialize in healthcare and fitness multi-agent systems.

**Figure 3 : Project structure of Intermittent Fasting Science**

### Project Structure

```

IFScience-MAC/
├── agents/                # Multi-agent control system
│   ├── base_agent.py     # Base agent interface
│   └── agent_manager.py  # Agent coordination
├── models/               # Model implementations
│   ├── implementations/  # Specific model implementations
│   ├── base_multimodal_model.py
│   └── model_factory.py  # Factory for model creation
├── training/             # Training services
│   ├── implementations/ # Training implementations
│   ├── base_trainer.py  # Base trainer interface
│   └── training_manager.py # Training coordination
├── data_services/        # Data service components
│   ├── base_data_service.py # Base data service interface
│   └── data_service_manager.py # Data service coordination
├── tests/                # Test suite
│   └── unit/              # Unit tests
│       ├── models/        # Model tests
│       ├── agents/        # Agent tests
│       ├── training/      # Training tests
│       └── data_services/ # Data service tests

```

## 8. What are some of the best Twitter accounts or articles to follow on AI agents or DeSci topics?

First and foremost, everyone needs to check out @ifsci\_ai and our agent @adesciagent. Now, jokes aside, within the DeSci space, we have some amazing contributors like @paulkhls from Bio Protocol and @0xMikeyF from Stadium Science.

When it comes to AI agents, special recognition goes to @KyeGomezB from Swarms, @shawmakesmagic from Eliza Labs (despite his constant yapping and occasional FUD), @jyu\_eth from Zerebro, and @cookiedotfun for tracking AI agents across chains—an invaluable tool for alpha!

For research articles, our team is particularly fond of the quarterly DeSci reports by @Aura\_Sci. They're incredibly comprehensive, offering deep insights into the latest trends and detailed updates on DeSci projects.

As for standout projects in DeSAI, we're big fans of @mcs\_swarm, which is pioneering automation in the healthcare industry, and @codatta\_io, breaking ground in Pathology AI as one of their frontier domains in AI.

## 9. What are the short-term and long-term goals for Intermittent Fasting Science?

### Shorter-term

Enhance our LLM for best-in-class nutritional estimates and develop a lightweight vertical model to improve efficiency

### Medium-term

Commercialize IFSCI-MAC to empower fitness apps and generate revenue to reward community supporters.

### Longer-term

Conduct groundbreaking intermittent fasting research using our large dataset and user base. Eventually, we aim to abstract the system into a specialized framework, contributing back to the open-source community

## 10. Any alpha or final thoughts you'd like to share?

We're exploring partnership and tech integration with other popular DeSci projects like Stadium Science to conduct cutting-edge experiments in intermittent fasting and food science. Since the launch of our token, our philosophy has been centered around the community. Accordingly, we've allocated 2.5% of the token supply to foster ecosystem growth.

Dropping a quick alpha here: 1% of this allocation will be dedicated to data annotation and contributions, such as snapping photos and correcting inaccurate AI analyses, spread across a year-long season!

Meanwhile, our team is hard at work devving the first-ever Web3-powered Intermittent Fasting and Food Science mobile app, designed to make the entire process seamless—with just a snap!

**Figure 4 : Snap a photo of your meal on X**



---

That's all! Thank you very much Lawson. I really appreciate your time, a lot of exciting things are coming from Intermittent Fasting Science.

*Disclaimer: Presto is not an investor in Intermittent Fasting Science, nor has it received any grants, funding, or financial incentives from Intermittent Fasting Science or its associated entities. The views expressed in this report are based on independent research and analysis, and are not influenced by any direct relationship with the project.*



## About Presto

Presto is an algorithmic trading firm where researchers and engineers solve challenging problems in global financial markets. Our core strength lies in combining engineering, mathematics, and science to navigate both digital asset and traditional finance markets with precision. Presto Research, our research unit, provides expert-driven insights to help navigate these markets effectively.

Find out more at <https://www.prestolabs.io>.

Follow Presto for more content: [X](#), [LinkedIn](#)

Follow Presto Research for latest research : [X](#), [Telegram](#)

---

## Authors

**Min Jung**, Research Analyst, [X](#), [Telegram](#), [LinkedIn](#)

---

## Required Disclosures

*Any expression of opinion (which may be subject to change without notice) is personal to the author and the author makes no guarantee of any sort regarding accuracy or completeness of any information or analysis supplied. The views and opinions expressed herein are those of the author(s) and do not necessarily reflect the views of Presto or its affiliates. This material by itself, is not and should not be construed as an offer or a solicitation to deal in any investment product or to enter into any legal relations. This material is for informational purposes only and is only intended for sophisticated investors, and is not intended to provide accounting, legal, or tax advice, or investment recommendations, or an official statement of Presto or its affiliates. Presto, its affiliates and its employees make no representation and assume no liability to the accuracy or completeness of the information provided. Presto, its affiliates and its employees also do not warrant that such information and publications are accurate, up to date or applicable to the circumstances of any particular case. Certain statements in this document provide predictions and there is no guarantee that such predictions are currently accurate or will ultimately be realized. Prior results that are presented here are not guaranteed and prior results do not guarantee future performance. Recipients should consult their advisors before making any investment decision. Presto or its affiliates may have financial interests in, or relationships with, some of the assets, entities and/or publications discussed or otherwise referenced in the materials. Certain links that may be provided in the materials are provided for convenience and do not imply Presto's endorsement, or approval of any third-party websites or their content. Any use, review, retransmission, distribution, or reproduction of these materials, in whole or in part, is strictly prohibited in any form without the express written approval of Presto. Presto Research and related logos are trademarks of Presto, or its affiliates.*