



AutoTest Agent

*Trae AI IDE: Zero Limits
Hackathon*



Participants

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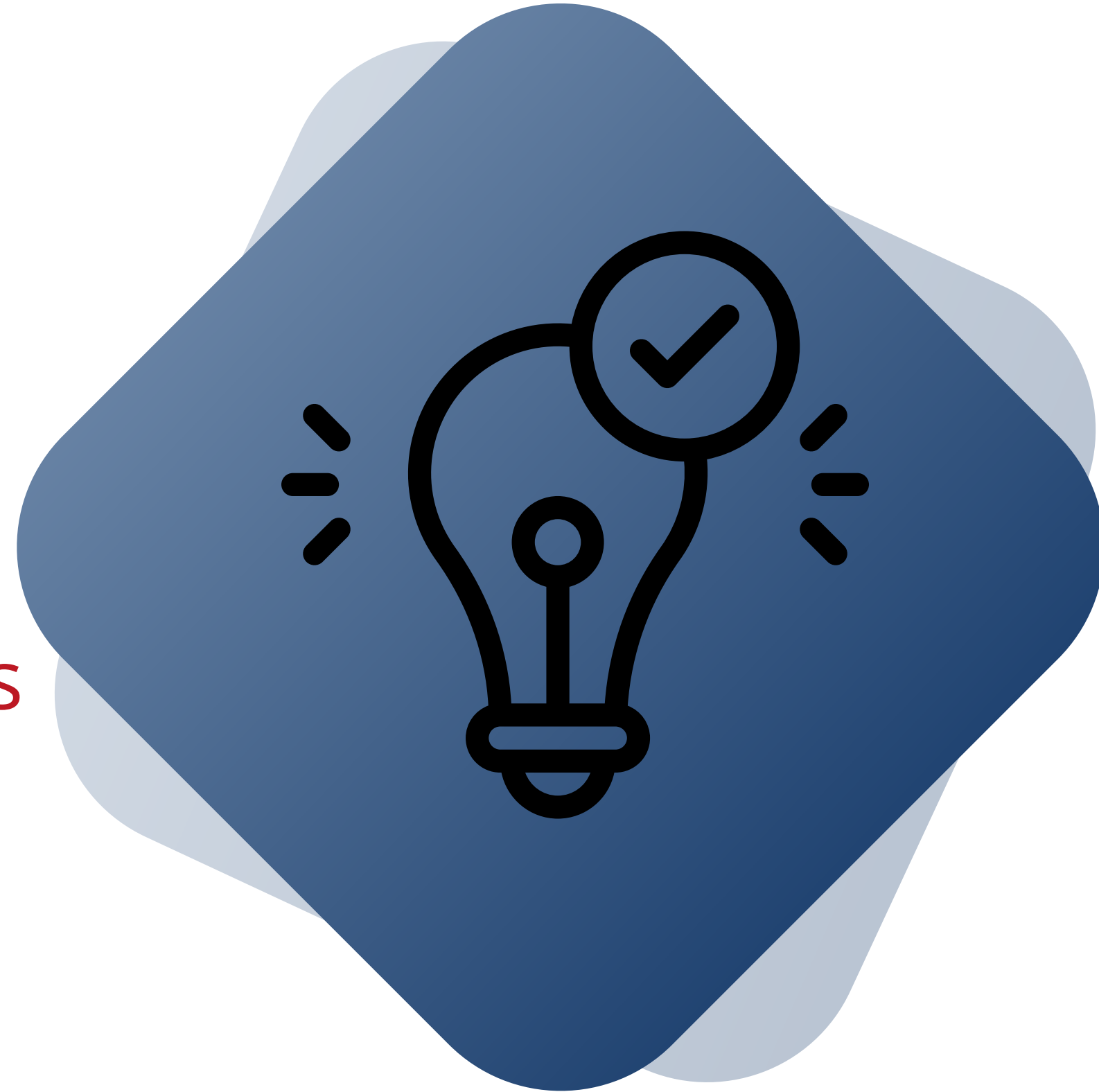
Problem Statement

Writing test cases is essential,
but often **neglected**.

Why this matters?

Many developers **skip writing unit tests**
due to:

- Lack of time
- Limited expertise
- Pressure to ship fast

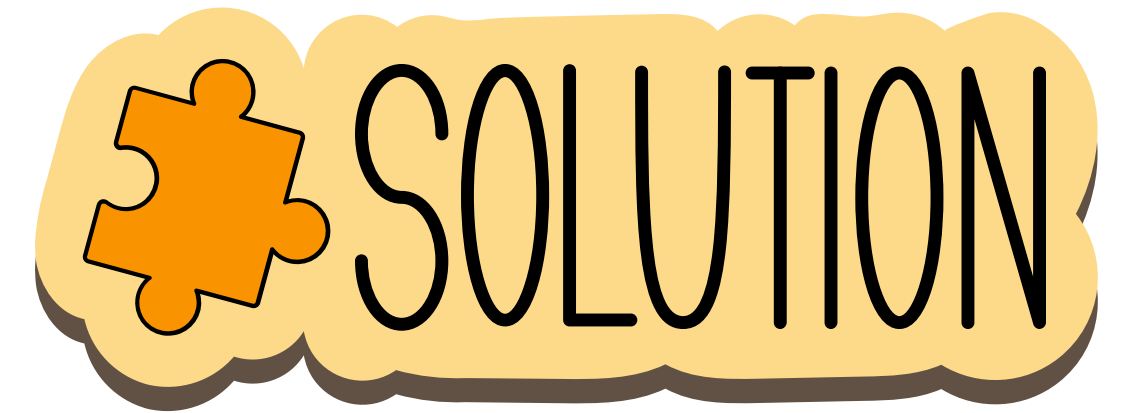


Our Solution

AutoTest Agent helps End users by:

- Accepting code modules & use-case description
- Using AI to understand and generate test cases
- Running tests & giving feedback
- Improving test coverage without effort

For Developers, we built custom agents using TRAE IDE



Key Features



Code Input: Paste or upload Python code



Use Case Input: Describe intended behavior



Test Runner: Optionally execute tests and see results



AI Test Generator: Builds test cases with: llama3-70b-8192



Feedback Loop: Refine or regenerate tests

How We Used Trae AI IDE

- Built multi-agent workflows using Trae's editable prompts
- Used deep context understanding to read code
- Integrated llama3-70b-8192 for test generation
- Ran tests with Trae's one-click execution feature



EXAMPLE

Example User Flow

User pastes code:

```
def add(a, b):  
    return a + b
```

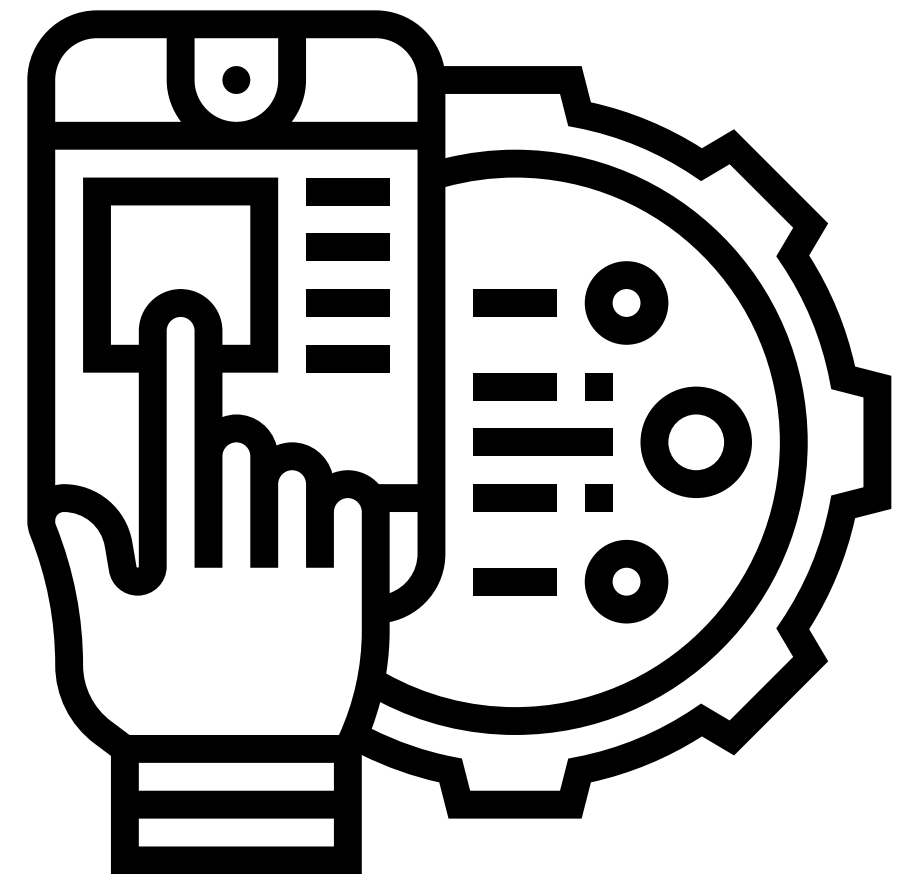
Inputs requirement:

This function should add two numbers and return the result.

AI generates tests:

```
def test_add():  
    assert add(2, 3) == 5  
    assert add(-1, 1) == 0
```

Tests executed →  Passed!



Tech Stack

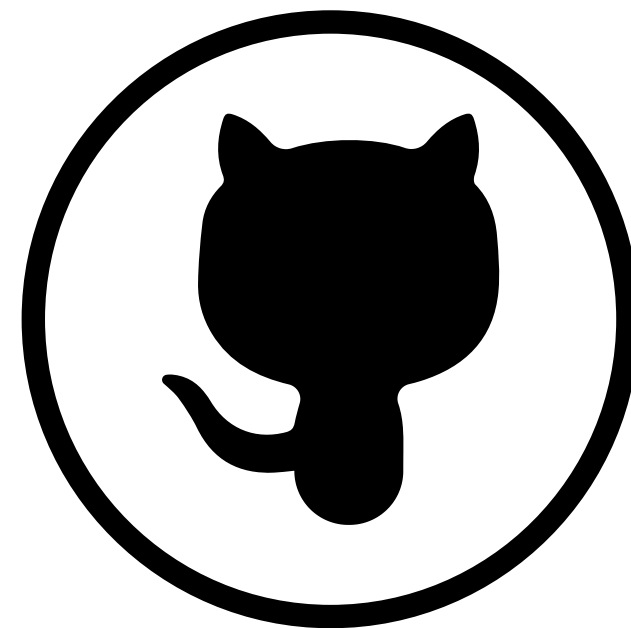
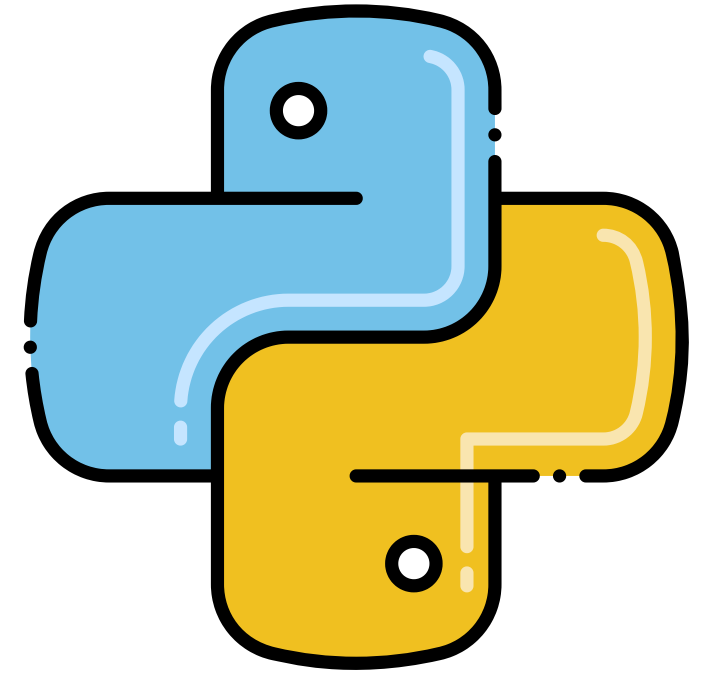
Language: Python

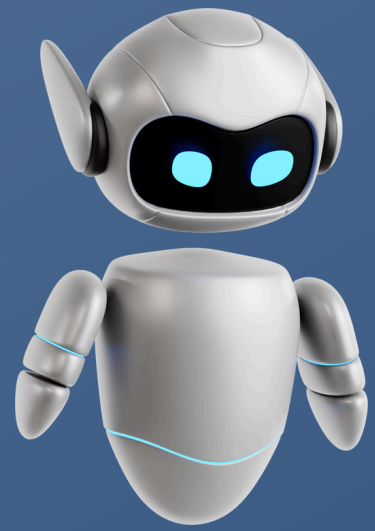
Test Frameworks: pytest / unittest

AI Models: llama3-70b-8192

UI: React

Version Control: GitHub





Custom agents

build in trae (Where TRAE IDE Actually helped)



My custom Debugger agent

My custom Debugger agent is a specialized tool designed to meticulously analyze code execution, providing deep insights and pinpointing errors to streamline the debugging process.

<https://s.trae.ai/a/54fe0d>

Git Handler agent

The Git Handler agent is an automated assistant designed to streamline version control workflows, simplifying common Git operations and enhancing repository management.

<https://s.trae.ai/a/54fe0d>

Test Case generator agent

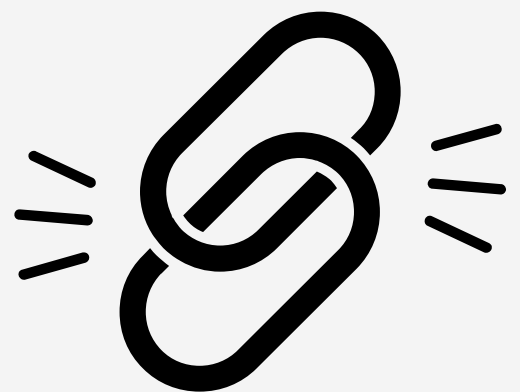
The Test Case Generator agent is an intelligent system that automates the creation of comprehensive test cases, ensuring thorough coverage and efficiency in software quality assurance.

<https://s.trae.ai/a/54fe0d>

Important Links

- *GitHub Repo: <https://github.com/RajabDildar/test-generator>*
- *Deployed Link: <https://test-generator-one.vercel.app/>*
- *Demo Video:*

Important



Thank
you