

INSTALLATION GUIDE

Locality Engine v2.0

COMPLETE SETUP INSTRUCTIONS

System Requirements

Locality Engine v2.0 is designed to run on modern systems with minimal dependencies.

Python Version

Python 3.8 or higher
Recommended: Python 3.10+

Operating System

Linux, macOS, Windows
All major platforms supported

Memory

Minimum: 512 MB RAM
Recommended: 1 GB+ RAM

Disk Space

50 MB for installation
Additional for dependencies

Installation Methods

1

Quick Install (Recommended)

The fastest way to get started. Install via pip from your terminal.

```
$ pip install locality-engine
```

🌟 Coming Soon

PyPI package will be available after production release. For now, use the manual installation method below.

2

Manual Installation (Current Method)

Install directly from source code. Perfect for development and customization.

Step 2.1: Clone or download the repository

```
$ git clone https://github.com/viantekeliana/locality-engine.git
$ cd locality-engine
```

Step 2.2: Install dependencies

```
$ pip install -r requirements.txt
```

Step 2.3: Install Locality Engine

```
$ pip install -e .
```

Important Note

Locality Engine currently has minimal external dependencies. The core engine is self-contained and runs with Python standard library only.

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Docker Installation

Run Locality Engine in an isolated container. Perfect for production deployments.

Step 3.1: Pull Docker image

```
$ docker pull viantekeliana/locality-engine:latest
```

Step 3.2: Run container

```
$ docker run -it viantekeliana/locality-engine:latest
```

Docker Coming Soon

Official Docker images will be available on Docker Hub after production release.

Step-by-Step Setup

1

Verify Python Installation

First, ensure Python 3.8+ is installed on your system.

```
$ python --version
```

Expected output:

```
$ Python 3.10.x (or higher)
```

Don't have Python?

Download from python.org or use your system's package manager:

macOS: brew install python

Ubuntu/Debian: sudo apt install python3

Windows: Download installer from python.org

2

Create Virtual Environment (Recommended)

Isolate Locality Engine from other Python projects to avoid conflicts.

Create environment:

```
$ python -m venv locality-env
```

Activate environment:

```
$ # Linux/macOS:  
source locality-env/bin/activate  
  
# Windows:  
locality-env\Scripts\activate
```

You should see `(locality-env)` in your terminal prompt.

3

Download Locality Engine

Get the source code for Locality Engine v2.0.

Option A: Download from GitHub

```
$ git clone https://github.com/viantekeliana/locality-engine.git
```

Option B: Download ZIP

1. Visit github.com/viantekeliana/locality-engine
2. Click "Code" → "Download ZIP"
3. Extract to your desired location

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Install Dependencies

Install required Python packages (minimal requirements).

```
$ cd locality-engine  
pip install -r requirements.txt
```

Minimal Dependencies

Locality Engine v2.0 has zero external dependencies for core functionality. The requirements.txt file only contains optional packages for enhanced features:

- ✓ Development tools (testing, linting)
- ✓ API server capabilities (FastAPI, uvicorn)
- ✓ Documentation generation

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Verify Installation

Test that Locality Engine is working correctly.

```
$ python locality_engine.py
```

You should see output demonstrating transformations across cultures:

```
=====
LOCALITY ENGINE v2.0 - Cultural Intelligence Demonstration
Built on Vianté Cultural Reasoning Framework™
© 2025 Rodney Manyakaidze (Keliana Vianté)
=====

CULTURE: BANTU_COLLECTIVE
Original: What do you want?
```

Risk: 45.0/100 (high)

Transform: What would you like me to assist you with?

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Quick Start Test

Run a simple test to ensure everything is working.

```
$ python -c "from locality_engine import LocalityEngine,
CulturalFramework; engine =
LocalityEngine(CulturalFramework.BANTU_COLLECTIVE);
print(engine.transform('What do you want?'))"
```

Expected output:

```
What would you like me to assist you with?
```

✓ **Success!**

If you see the transformed message, installation is complete! You're ready to integrate Locality Engine into your projects.

Troubleshooting

Common Issues & Solutions

Issue: "python: command not found"

Solution: Python is not installed or not in your PATH. Try:

- `python3` instead of `python`
- Install Python from python.org
- Add Python to your system PATH

Issue: "ModuleNotFoundError: No module named 'locality_engine'"

Solution: The module is not in your Python path. Try:

- Ensure you're in the correct directory: `cd locality-engine`
- Run directly: `python locality_engine.py`
- Install in development mode: `pip install -e .`

Issue: Permission denied errors

Solution: Use a virtual environment or install with user flag:

- `pip install --user -r requirements.txt`
- Or create virtual environment (recommended - see Step 2 above)

Issue: "Python version too old"

Solution: Locality Engine requires Python 3.8+:

- Check version: `python --version`

- Upgrade Python from python.org
- Or use `python3.10` explicitly if multiple versions installed

Post-Installation Checklist

- ✓ Python 3.8+ installed and accessible
- ✓ Virtual environment created and activated (recommended)
- ✓ Locality Engine downloaded and extracted
- ✓ Dependencies installed (if using optional features)
- ✓ Test script runs successfully
- ✓ Import works in Python: `from locality_engine import LocalityEngine`
- ✓ Ready to integrate into your projects!



Installation Complete!

Congratulations! Locality Engine v2.0 is now installed and ready to transform your AI systems with cultural intelligence. Proceed to the User Guide to learn how to integrate it into your applications.

Next Steps



Read the User Guide

Learn how to integrate Locality Engine into your applications with practical examples and best practices.



Try Example Applications

Explore the 20+ use cases documented in the Owner's Manual to see how Locality Engine solves real-world problems.



Start Building

Integrate Locality Engine into your chatbots, APIs, healthcare systems, or business applications to add cultural intelligence.

