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$1 \quad gitread_MarketSense$

Primary Language: python Project Type: Web Frontend Complexity: Complex Generated: 2025-06-02T07:38:44.458731

1.1 Table of Contents

- Technology Stack
- Usage
- Project Structure
- Project Summary & Goals
- Key Features & Use Cases
- Setup Instructions
- Configuration Required
- Major Components & Modules
- Execution Plan
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- Deployment Checklist
- Troubleshooting & Tips
- Performance Optimization
- Contributing Guidelines

1.2 Technology Stack

This project leverages modern technologies and frameworks to deliver a robust, scalable, and maintainable solution. The technology choices reflect current industry best practices and ensure optimal performance and developer experience.

1.2.1 Programming Languages

• **python** (Primary): 61.5% - 16 files

• markdown: 19.2% - 5 files

json: 15.4% - 4 fileshtml: 3.8% - 1 files

1.2.2 Development Tools

- Modern Development Stack: Industry-standard tools and practices
- Code Quality Tools: Linting, formatting, and testing utilities
- Build Optimization: Automated bundling and optimization processes

1.2.3 File Breakdown

Language	Files	Percentage	Purpose
python	16	61.5%	Application development and functionality
\max kdown	5	19.2%	Application development and functionality
json	4	15.4%	Application development and functionality
html	1	3.8%	Application development and functionality

1.2.4 Architecture Overview

- Modular Design: Clean separation of functionality and concerns
- Scalable Structure: Organized codebase for easy maintenance
- Best Practices: Following industry standards and conventions
- Documentation: Comprehensive code documentation and comments

1.3 Usage

[Usage examples to be documented]

1.4 Project Structure

```
gitread_MarketSense/
    agents/
        __pycache__/
            . . .
            . . .
        __init__.py
        CompetitorScanner.py
       FeatureMapper.py
       MarketSizer.py
       ReportWriter.py
        SignalAnalyzer.py
    outputs/
        competitors.json
        feature_matrix.json
        features.md
        final_report.md
        final_report.pdf
```

```
market_size.json
   market_size.md
   market_size_chart.html
   marketsense.log
   signals.json
   signals.md
templates/
tests/
   __pycache__/
       . . .
   test_competitor_scanner.py
   test_feature_mapper.py
demo_feature_mapper.py
fix_reddit_auth.py
PitchSense_info.pdf
{\tt README.md}
reddit_diagnosis.py
requirements.txt
run marketsense.py
test_reddit_api.py
test_reddit_auth_methods.py
test_reddit_webapp.py
test_setup.py
```

1.4.1 Directory Description

• tests/: [Description needed]

• agents/: [Description needed]

• templates/: [Description needed]

• outputs/: [Description needed]

1.5 Project Summary & Goals

2 gitread_MarketSense - Comprehensive Project Plan

Repository: [GitHub Repository URL] Primary Language: python Project Type: Application Complexity: Low Last Updated: June 02, 2025

2.1 Table of Contents

- 1. Project Summary & Goals
- 2. Key Features & Use Cases
- 3. Technology Stack
- 4. Project Structure
- 5. Major Components & Modules
- 6. Setup Instructions

- 7. Configuration Required
- 8. Execution Plan
- 9. Development Workflow
- 10. Deployment Checklist
- 11. Troubleshooting & Tips
- 12. Performance Optimization
- 13. Contributing Guidelines

2.1.1 Overview

AI-Powered Market Research Agent for PitchSense

MarketSense is a comprehensive, modular Python platform that performs automated market research for startups. Built specifically for PitchSense, it analyzes competitors, maps features, extracts customer pain points, estimates market size, and generates professional research reports.

2.1.2 Primary Goals

• Functionality: Deliver core features with high reliability and performance • Maintainability: Ensure clean, well-documented, and extensible codebase • User Experience: Provide intuitive and efficient user interactions • Quality: Maintain high code quality with comprehensive testing

2.1.3 Target Audience

• Developers and software engineers • Technical teams and project stakeholders • Students and learners in software development • Anyone interested in modern software architecture

2.2 Key Features & Use Cases

2.2.1 Core Features

Purpose: Creates comprehensive feature comparison matrices

Input: Competitor data from CompetitorScanner

Output: - features.md - Human-readable comparison table - feature_matrix.json - Structured feature analysis

Key Features: - Standardized feature categorization - Pricing analysis and comparison - Target segment identification - Strength/weakness analysis

2.2.2 Use Cases

• **Development Learning:** Educational resource for software development • **Production Deployment:** Ready-to-use solution for real-world applications • **Code Reference:** Example implementation for similar projects • **Foundation Framework:** Starting point for custom development

2.2.3 Feature Highlights

• Professional Architecture: Well-structured and maintainable codebase • Modern Technologies: Built with current industry standards • Scalable Design: Prepared for future growth and enhancements

2.3 Setup Instructions

This section provides comprehensive instructions for setting up the development environment and running the project locally. Follow these steps carefully to ensure a smooth setup process.

2.3.1 Prerequisites

Before you begin, ensure you have the following software installed on your system:

- Git for version control
- Code Editor (VS Code, Sublime Text, etc.)
- Terminal/Command Line access

2.3.2 System Requirements

2.3.2.1 Minimum Requirements

- Operating System: Windows 10, macOS 10.15, or Linux (Ubuntu 18.04+)
- RAM: 4GB minimum, 8GB recommended
- Storage: 2GB free space
- Internet Connection: Required for initial setup and dependencies

2.3.2.2 Recommended Specifications

- RAM: 16GB for optimal performance
- CPU: Multi-core processor (Intel i5/AMD Ryzen 5 or better)
- Storage: SSD for faster build times

2.3.3 Step-by-Step Installation

2.3.3.1 Step 1: Clone the Repository

```
# Clone the repository
git clone https://github.com/username/gitread_MarketSense.git
# Navigate to project directory
cd gitread_MarketSense
```

2.3.3.2 Step 2: Install Dependencies

2.3.3.3 Step 3: Verify Installation

2.3.3.4 Step 4: Environment Setup

1. Copy environment template:

```
cp .env.example .env
```

- 2. Configure environment variables (see Configuration section)
- 3. **Initialize database** (if applicable):

```
# Run database migrations
npm run migrate
# or for Python projects
python manage.py migrate
```

2.4 Configuration Required

This section outlines all necessary configuration steps to ensure the application runs correctly in your environment. Proper configuration is essential for security, performance, and functionality.

2.4.1 Environment Variables

Environment variables are used to configure the application for different environments (development, staging, production) and to store sensitive information securely.

2.4.1.1 Required Variables Create a .env file in the project root directory and configure the following variables:

```
# Application Settings
APP_ENV=development
APP_DEBUG=true
APP_PORT=3000

# Database Configuration
DATABASE_URL=your_database_connection_string
# API Keys and Secrets
API_SECRET_KEY=your_secret_key
ENCRYPTION_KEY=your_encryption_key
```

2.4.2 Build Configuration

2.4.3 Security Configuration

2.4.3.1 Important Security Notes

- Never commit .env files to version control
- Use strong passwords and secure API keys
- Enable HTTPS in production environments
- Regularly update dependencies for security patches
- Implement rate limiting for API endpoints

2.4.3.2 Environment-Specific Settings

Environment	Debug Mode	HTTPS	Database	Caching
Development		Optional		Disabled
Staging	Limited	Required	Remote	Enabled
Production	Disabled	Required	Remote	Enabled

2.5 Major Components & Modules

2.6 Development

2.6.1 Development Setup

- 1. Follow the installation instructions
- 2. Install development dependencies
- 3. Set up your development environment

2.7 Execution Plan

2.8 Development

2.8.1 Development Setup

- 1. Follow the installation instructions
- 2. Install development dependencies
- 3. Set up your development environment

2.9 Development Workflow

2.10 Development

2.10.1 Development Setup

- 1. Follow the installation instructions
- 2. Install development dependencies
- 3. Set up your development environment

2.11 Testing Strategy

2.12 Testing

2.12.1 Running Tests

pytest

2.12.2 Test Structure

• tests/: Test files

2.13 Deployment Checklist

2.14 Deployment

2.14.1 Production Considerations

- Environment variables configuration
- Database setup and migrations
- Security considerations
- Monitoring and logging

2.15 Troubleshooting & Tips

2.16 Development

2.16.1 Development Setup

- 1. Follow the installation instructions
- 2. Install development dependencies
- 3. Set up your development environment

2.17 Performance Optimization

2.18 Development

2.18.1 Development Setup

- 1. Follow the installation instructions
- 2. Install development dependencies
- 3. Set up your development environment

2.19 Contributing Guidelines

2.20 Development

2.20.1 Development Setup

- 1. Follow the installation instructions
- 2. Install development dependencies
- 3. Set up your development environment

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