

Job Title:

Developer Needed for AI Agent and UI Development (Choose Your Task)

Job Description:

I'm looking for experienced developers to contribute to a complex AI-driven project called **AI Agent Lab**. This Open Source project involves the development of both an **AI Agent** responsible for processing user inputs and interacting with external services (e.g., QuestDB, Grafana, VSCode), and a **Flask-based AI Agent UI** that acts as the front-end for user interaction.

We have a detailed task breakdown and are open to developers choosing the tasks they are most skilled in or interested in. You can work on individual tasks or multiple tasks depending on your expertise.

Technologies Involved:

- Python (Flask, APIs)
- Docker & Docker Compose (Fully functional)
- QuestDB (PostgreSQL)
- Grafana (API integration)
- VSCode API
- OpenAI API (NLP tasks)
- Front-End: HTML, CSS (Bootstrap/Tailwind), JavaScript, React (optional)

Project Phases and Tasks Available:

Phase 1: Infrastructure and Environment Setup

- **Task 1:** Docker and Docker Compose Configuration
- **Task 2:** Dockerfile Creation for AI Agent and UI services

Phase 2: AI Agent Development

- **Task 3:** Input Processing (validation, sanitization, and intent parsing)
- **Task 4:** Interaction with OpenAI API for NLP
- **Task 5:** Database Interaction with QuestDB (SQL, REST API, query optimization)
- **Task 6:** Integration with Grafana (API to fetch/update dashboards)
- **Task 7:** VSCode Integration for code execution and file management

Phase 3: AI Agent UI Development

- **Task 8:** UI Design and Setup (Flask, wireframes)
- **Task 9:** Front-End Development (HTML, CSS, JavaScript, React)
- **Task 10:** Flask Back-End Development (API endpoints, session management)
- **Task 11:** Integration with AI Agent (REST API for data exchange)

Phase 4: Performance and Optimization

- **Task 12:** API Efficiency (request batching, caching, rate limiting)
- **Task 13:** Database Query Optimization (indexing, query optimization)
- **Task 14:** Background Task Processing (optional, Celery or similar)

Phase 5: Testing, Performance, and Deployment

- **Task 15:** Final Testing and Debugging
- **Task 16:** Deployment and Performance Monitoring

Phase 6: Documentation

- **Task 17:** Code and API Documentation (README, setup instructions)
-

What We're Looking For:

- Proficient in one or more of the technologies listed above
 - Ability to work independently and deliver clean, well-documented code
 - Experience with API development and integration
 - Familiarity with Docker, DevOps practices, and modern web technologies
 - (Required for Task 4) Experience with AI and natural language processing (NLP)
-

How to Apply:

- Please specify which task(s) you are most interested in or best suited for.
- Include examples of similar work you've done (links to repositories or websites).
- Provide a time estimate for the task(s) you select.

We will hire multiple freelancers, so feel free to apply even if you're only interested in one or two tasks. The project is ongoing, and there's potential for long-term collaboration if this phase goes well.

Budget:

Hourly or fixed-rate depending on the task(s) selected. Please include your rate and estimated hours for your chosen tasks in your proposal.