

AI Engineer Intern Assignment - Workplete

Background

Workplete is a leading AI automation company that provides AI employees to users across various industries. Our mission is to revolutionise the workplace by seamlessly integrating AI-powered virtual employees into existing teams and workflows.

Assignment Overview

As an AI engineer intern at Workplete, your task is to develop a prototype for a new AI employee that specialises in data analysis and reporting. This AI employee should be capable of processing large datasets, identifying trends, and generating insightful reports for the clients.

Requirements

1. Data Processing

- Implement a data ingestion module that can handle various file formats (CSV, JSON, Excel)
- Create a data cleaning and preprocessing pipeline

2. Analysis Engine

- Develop an analysis engine that can identify key trends and patterns in the data
- Implement at least three different statistical or machine learning algorithms for data analysis

3. Report Generation

- Create a module that can generate comprehensive reports based on the analysis results
- The reports should include visualisations (charts, graphs) and written summaries

4. User Interaction

- Design a simple command-line interface for users to interact with the AI employee
- Implement basic natural language processing to understand user queries related to the data analysis

5. Documentation and Testing

- Provide clear documentation for your code and the overall system architecture
- Write unit tests for critical components of your implementation

Deliverables

1. Source code for the AI employee prototype
2. A brief technical report (2-3 pages) describing your approach, challenges faced, and potential improvements
3. A 5-minute presentation demonstrating the capabilities of your AI employee

Evaluation Criteria

- Code quality and organisation
- Effectiveness of the analysis and insights generated
- User-friendliness of the interface
- Creativity and innovation in approach
- Quality of documentation and presentation

Timeline

- You will have 5 days to complete this assignment
- Scheduled interview will be taken after the successful completion of assignment.

Resources

- Sample Data Link:

<https://docs.google.com/spreadsheets/d/13kLMfJi91ZrJhGHieCOVSI2xb6Ba4Vr48zE42IINbTo/edit?usp=sharing>

- Feel free to use open-source libraries and frameworks, but clearly document any external dependencies.

- Submit the presentation at

<https://drive.google.com/drive/folders/1x2fZrH02grfFTrJC0B2yo-l8unmD7X46?usp=sharing>

Good luck! We're excited to see your innovative solutions and how you approach creating an AI employee that aligns with Workplete's mission.