

AutoOps AI - Skill-to-Task Matcher

README.md - AutoOps AI

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An AI-powered system to match employee profiles with the most relevant company tasks using SBERT embeddings and cosine similarity. Designed to optimize team structures, reduce redundancy, and enable automation.

Project Overview

This project is part of the AutoOps AI suite. It matches internal employee skills to job-level tasks within an organization. The system:

- Reads employee roles and skillsets from a CSV file.
- Loads a task catalog with automation details and tools.
- Embeds both employee skills and task descriptions using Sentence-BERT (SBERT).
- Uses cosine similarity to rank the top matching tasks for each employee.
- Flags automation opportunities and tools.

Use Cases

- Optimize resource allocation.
- Identify roles for automation.
- Minimize team overlap.
- Restructure departments post-acquisition.
- Build lean teams for startups or cost-cutting.

Tech Stack

- Python 3
- SBERT (sentence-transformers)
- pandas, scikit-learn, numpy
- Google Colab / Jupyter Notebook

Outputs

For each employee: matched task, similarity score, automation_possible flag, and suggested_tool.