I2.02 - Conversational AI Integration for Crean and VIA Smart Factory

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Sponsor Intro

Crean Inc. is a leading engineering and consulting firm specializing in manufacturing solutions

Crean Inc. and ViA Smart Factory deliver smart manufacturing solutions for high-tech companies

ViA Smart Factory is designed to transform traditional manufacturing into data-driven, intelligent operations.

Project Overview

1. Automating consultant matchmaking with AI.
2. AI system to predict schedules and optimize production in high-mix factories.

Designs: VIA vs Match

Input	
Data Prep	ResumeEmbeddings
Table Flattening	FAISS Index
Cleaned Input	Job Embedding
Logic	
Scheduling Rules	Similarity Scoring
EDD + SPT	Candidate Ranking
Simulation Engine	AI Reasoning
Output	
Predicted Times	Ranked Matches
Delivery Metrics	Fit Analysis
KPI Results	Skill Gaps

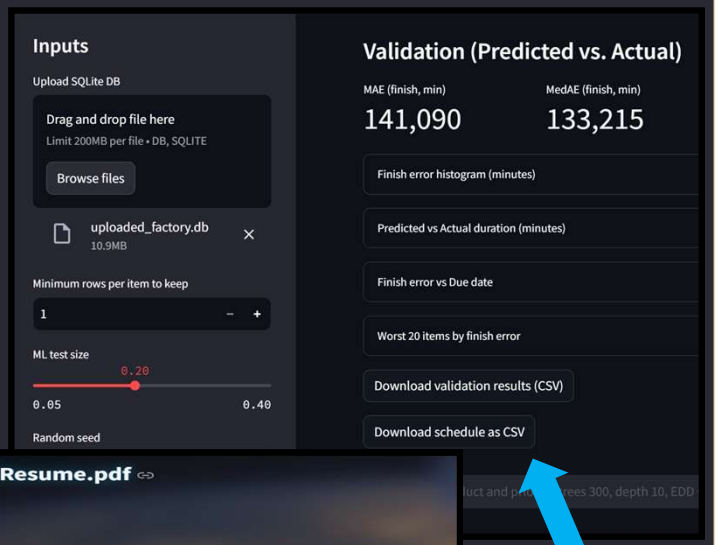
Results System 1 (VIA Smart Factory Scheduling)

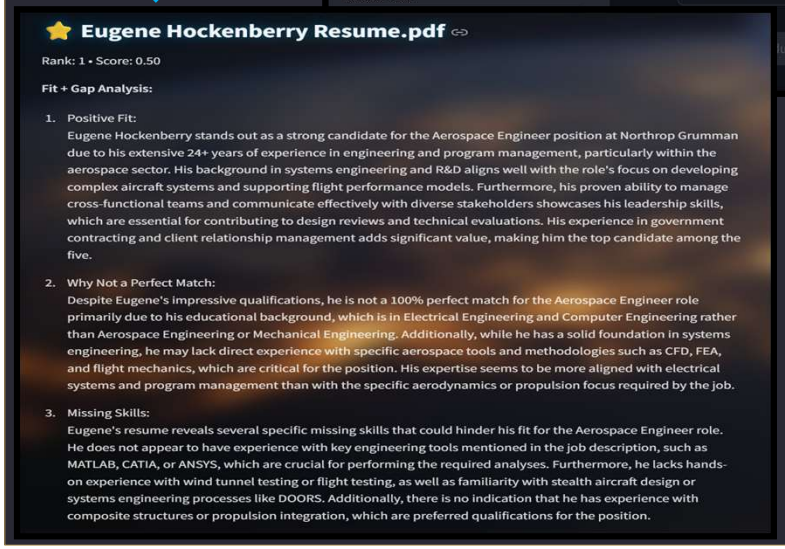
-End-to-end AI scheduler
-Cleaned & restructured data
-Modular ML prediction engine
-Streamlit schedule extractor

Results System 2 (Match-Making)

-95% faster
-Real-time reasoning
-Full web app
-85% improved accuracy
-Scalable

Top provided engineer example





Predicted Schedule as an excel table

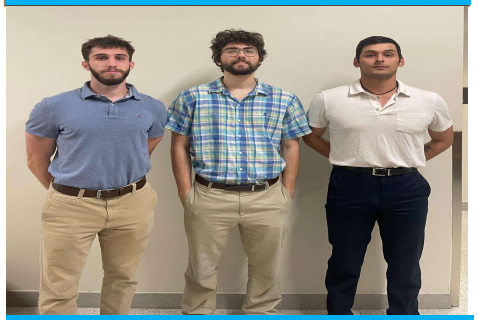
Future Plans (VIA)

- ±6 hr accuracy
- Higher on-time rate
- Lower tardiness
- Less manual planning
- Cloud/Server deployment
- Real-time DB integration
- New key scheduling factors

Future Plans (Match)

- Dynamic rotating background
- Industry-grade scaling
- AI chat assistant for preference-based matching

Team Members



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