



# SKILL DNA

Your Talent Genome. Decoded.

Refined. Rebuilt.

</>42 Prague Hackathon | Nov 2025

presented by  
ÇAJ\_TEAM

THE GOAL

# Automated Competency Detection

We built an AI that **reads company history** to identify **exactly what employees can do.**

Most companies rely on static job titles. We process raw data to extract verified, real-world competencies automatically.



"Competency Profiles"

THE INPUT

# Mining 12 Years of Employee Data

Competency data is hidden in messy formats. We processed **12 years** of diverse Škoda records to find the signal in the noise.

## Historical Logs

POSITIONS &  
PROJECTS

## Certifications

HARD SKILLS

## Org Structure

TEAM  
CONTEXT

**The Challenge:** Connecting disparate data points (Courses + Job History) to build a complete "Competency Genome"

# From Raw Text to Verified Skills

How does the AI know who is good at what? Our 3-step detection pipeline:



## 1. Extract

### **GPT-4o Semantic Parsing:**

Identifies skill keywords within mixed-language job descriptions.



## 2. Vectorize

**Skill Embedding:** Converts skills into vectors (e.g., knowing "ML" is close to "Data Science").



## 3. Profile

### **Competency Mapping:**

Automatically assigns verified competency profiles to employees.

THE VALUE

# Actionable Competency Insights

## Skill Discovery

"Found 50 employees with hidden Python skills."

## Gap Analysis

"Marketing team lacks Data Analytics competencies."

## Role Evolution

"Q&A roles are evolving into Automation Engineers."

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Genome Map

Evolution

Strategic Insights

Manager AI

Network

Upload Data

SYSTEM STATUS

● ONLINE

// ML\_BACKEND

INTELLIGENCE\_CORE\_INTERFACE

DATASET: SKODA\_2013-2025

EXPORT REPORT

SKILL\_DNA INTELLIGENCE

Ask about skill gaps, team diversity, or mentor recommendations based on the Škoda organizational genome.

"Identify gaps in E-Mobility"

"Find mentors for Python"

Query the organizational genome...

>>

## HOW WE CAN RUN?

URL: [https://drive.google.com/drive/folders/16NF6cgvAvaJyYOabRdSQ\\_3bjDxYR\\_fNm?usp=sharing](https://drive.google.com/drive/folders/16NF6cgvAvaJyYOabRdSQ_3bjDxYR_fNm?usp=sharing)

## HOW WE CAN RUN?





THE DEMO

# HOW WE CAN RUN?

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SKILLDNA

Genome Map

Evolution

Strategic Insights

Manager AI

Network

Upload Data

SYSTEM STATUS

● ONLINE // ML\_BACKEND

DATA\_UPLOAD\_SYSTEM

DATASET: SKODA\_2013-2025

EXPORT REPORT

EN Switch to Czech

Upload Employee Data

Drag and drop CSV, Excel, or PDF files here

Select File

Supported Formats (5 formats)

THE BUILDERS

# Team & Expertise



**ELVİ ZEKAJ**

**PROJECT LEAD**

AI Architecture



**YUSUF ALPEREN OCAK**

**DATA ENGINEER**

Pipeline & ETL



**SENA ZELAL DEMİR**

**FULL STACK DEVELOPER**

Dashboard & UX-UI



**ŞEYMA KARACA**

**PROJECT MANAGER**

Business Insights

GITHUB: [github.com/ezekaj/ai\\_skoda-11-2025#](https://github.com/ezekaj/ai_skoda-11-2025#)