S³ - Škoda Smart Stream

AI-Powered Learning & Development Platform

Hackathon AI Skill Coach │ 42 Prague x 42 Heilbronn

S³

HEILBRONN

FOR EMPLOYEES:
Overwhelming catalogs,
Unclear paths

FOR HR MANAGERS:
Limited visibility,
No data,
Manual assignment

The Challenge

For Employees

- Overwhelming course catalogs (10,000+ courses)
- Unclear skill gaps and development paths
- No personalized learning recommendations
- Difficulty connecting skills to career goals

For HR Managers

- Limited visibility into team skill levels
- No data-driven approach to L&D planning
- Difficulty identifying critical skill gaps
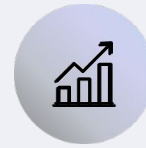- Manual, time-consuming course assignment

Our Solution

S³ connects employee skill data with job requirements and career goals using AI-powered analytics

Personalized Development Plans

AI-powered recommendations based on skill gaps, role, and career goals

Skill Gap Analysis

Visual "Swiss Cheese" profiles showing strengths and areas for improvement

Manager Dashboard

Comprehensive analytics for team development planning and training optimization

Intelligent Course Discovery

Semantic search across 10,000+ courses with AI-powered matching

Key Features

For Employees

- Personalized Learning Feed
- Skill Gap Visualization
- Course Recommendations
- Progress Tracking
- Advanced Search & Filters

For HR Managers

- Employee Search with Filters
- Analytics Dashboard
- Department Overview
- Module Assignment
- Learning Analytics

Comprehensive Data Integration

We use ALL provided data sources from the Škoda ecosystem

Employee Data

Employee profiles, roles, education background

Training History

Course completions from Legacy LMS and extended records

Degreed Platform

External learning platform data and course catalog

Skill Mapping

Course-to-skill mappings and competency data

Role Requirements

Role-specific responsibilities and requirements

Organization Data

Department structure and organizational relationships

AI-Powered Intelligence

Advanced AI and data analytics at the core of our solution

Semantic Matching
TF-IDF embeddings for intelligent course matching and recommendations

Skill Gap Detection
AI-powered inference of skill levels from learning history

Multi-Language Processing
Automatic Czech-to-English translation for data unification

Intelligent Categorization
Automatic course categorization using keyword analysis

By The Numbers

10,000+
Courses Available

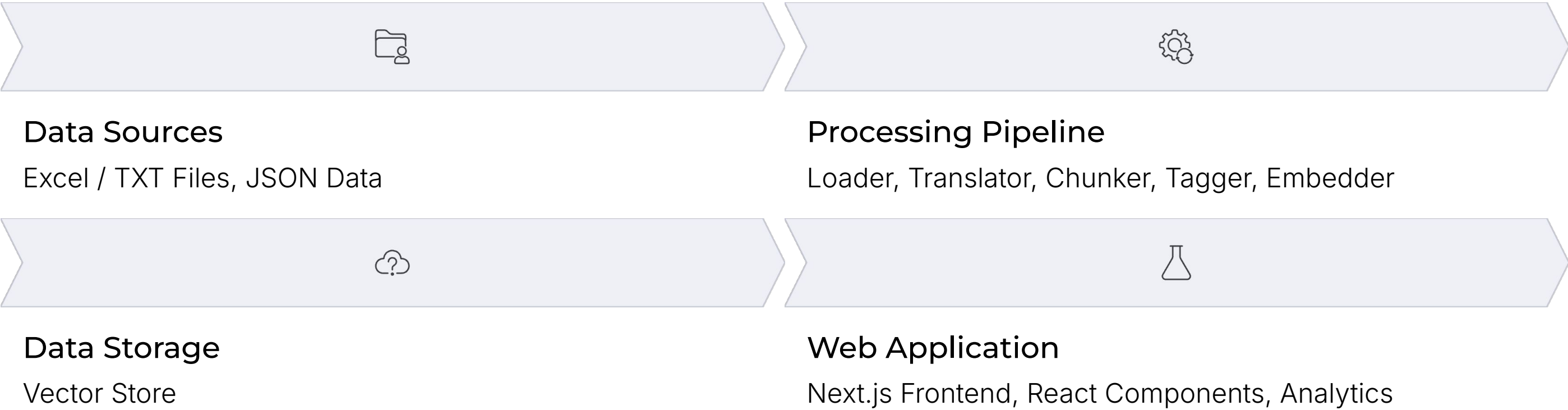**215**
Employees

296
Job Descriptions

100%
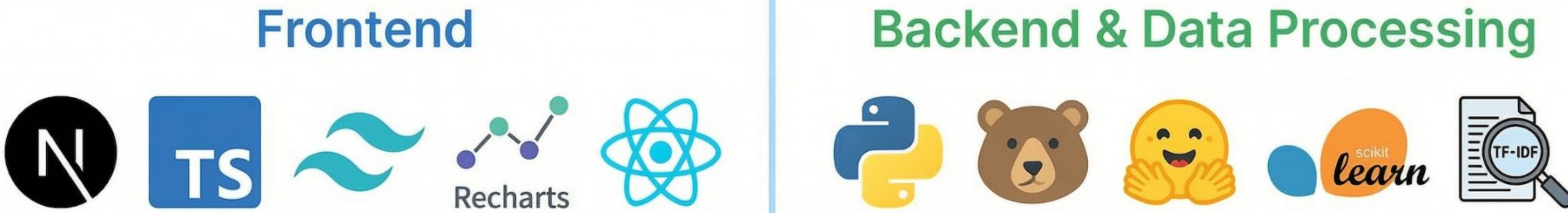Data Sources Used

8
Data Sources Integrated

3
Languages Supported

System Architecture

Data Sources
Excel / TXT Files, JSON Data

Processing Pipeline
Loader, Translator, Chunker, Tagger, Embedder

Data Storage
Vector Store

Web Application
Next.js Frontend, React Components, Analytics

Modular, scalable architecture ready for production deployment

Technology Stack

Frontend

Backend & Data Processing

Impact & Value Proposition

For Employees

- Reduced time to find relevant courses
- Clear understanding of skill gaps
- Personalized learning paths
- Career development support

For Organization

- Data-driven L&D decisions
- Optimized training investments
- Skill-based workforce planning
- Continuous learning culture

Supporting Škoda's vision: "A culture where lifelong learning is supported and valued"

Thank You

Questions?

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https://89.168.52.201/skoda/