



# AI-POWERED PDF RESUME ANALYZER

AI-Based Resume Analysis and Scoring System | Digital Summit 2025



## Goal

In this hands-on lab, you will build an **AI-powered Resume Analyzer** that allows users to upload a resume and receive instant, AI-generated insights. The application uses **Google Gemini AI** to analyze resume content, identify key skills and experience, and generate a **resume score with improvement suggestions**. By the end of this lab, you will understand how to integrate **Google Generative AI (Gemini API)**, design prompts for AI-based analysis, and build a simple web interface that converts **unstructured resume data into structured insights**.

## Pre-Requisites

- Node.js
- Google account (for API Key)

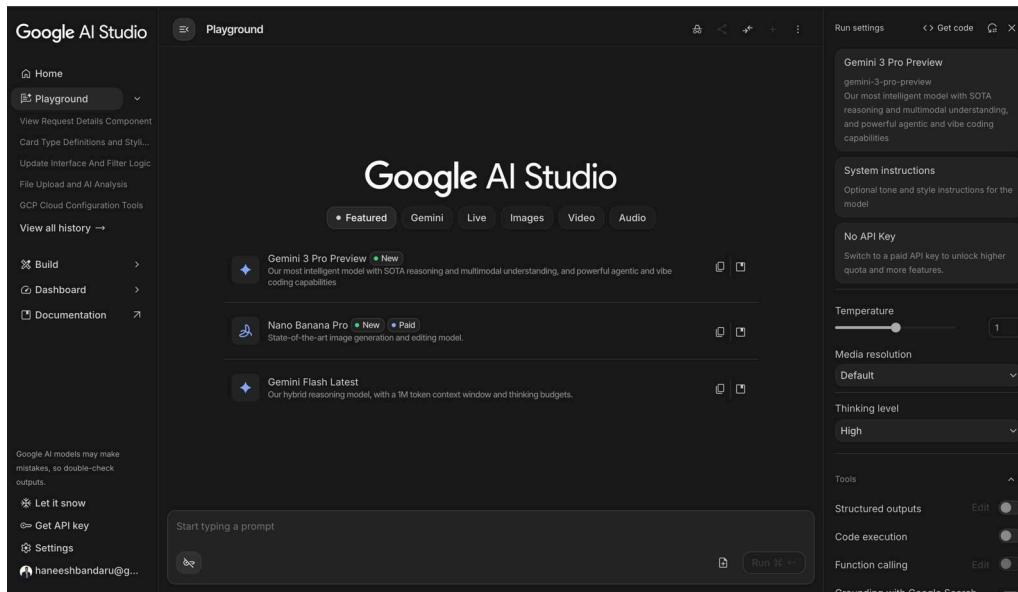
## Technology Involved

1. React
2. Google Gemini AI

## Lab Steps

### Step 1: Get Google Gemini API Key

## 1. Go to Google AI Studio



## 2. Create / select a project

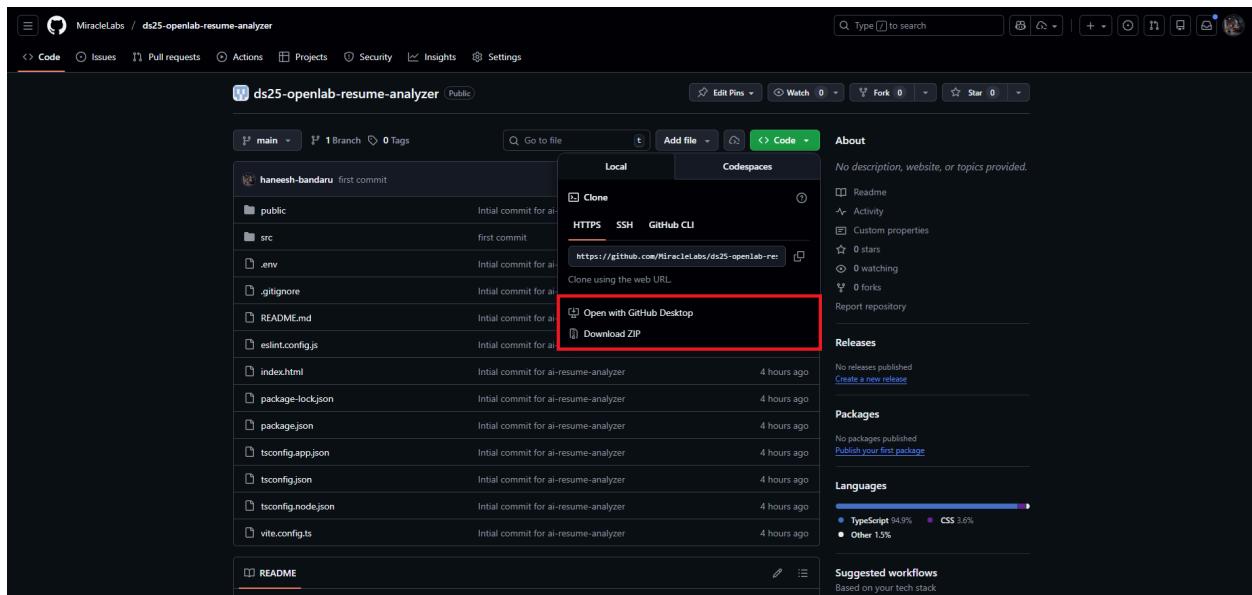
## 3. Generate an API Key

## 4. Copy the key

Key	Project	Created on	Quota tier
...MfEk demo1	pdf resume gen-lang-client-0199222209	Dec 17, 2025	Set up billing Free tier
...Es1Q Demo1	Story board gen-lang-client-0877694133	Dec 16, 2025	Set up billing Free tier
...LDG0 test	Story board gen-lang-client-0877694133	Dec 9, 2025	Set up billing Free tier

## Step 2: Clone the Repository

- git clone or download as zip :[Link](#)



- cd ds25-openlab-resume-analyzer

## Step 3: Install Dependencies

- npm install

## Step 4: Configure Environment Variables

Create a file named **.env** in the project root:

- GOOGLE\_API\_KEY=your\_google\_gemini\_api\_key

## Step 5: Run the Application

- npm run dev

## Step 6: Open in Browser

- Local URL: <http://localhost:5173>

Open this in your browser.

The screenshot shows a web application titled "AI-Powered PDF Resume Analyzer". At the top left is the "ADS DIGITAL SUMMIT '25" logo, and at the top right is the "MIRACLE SOFTWARE SYSTEMS" logo. Below the title, a sub-header reads "POWERED BY GEMINI 3 PRO". A central call-to-action button says "Upload, Analyze, and Score Resumes Instantly Using Generative AI". Below this is a large input field with a cloud icon and the text "Upload your Resume" and "Drag & Drop or click to browse PDF files only (Max 5MB)". At the bottom, there are three service cards: "Instant Scoring" (yellow lightning bolt icon), "Keyword Analysis" (magnifying glass icon), and "Smart Feedback" (target icon). Each card has a brief description below it.

ADS  
DIGITAL SUMMIT '25

MIRACLE  
SOFTWARE SYSTEMS

POWERED BY GEMINI 3 PRO

Upload, Analyze, and Score Resumes Instantly Using Generative AI

Upload your Resume  
Drag & Drop or click to browse  
PDF files only (Max 5MB)

Instant Scoring

Get a 0-100 score based on real-world ATS algorithms.

Keyword Analysis

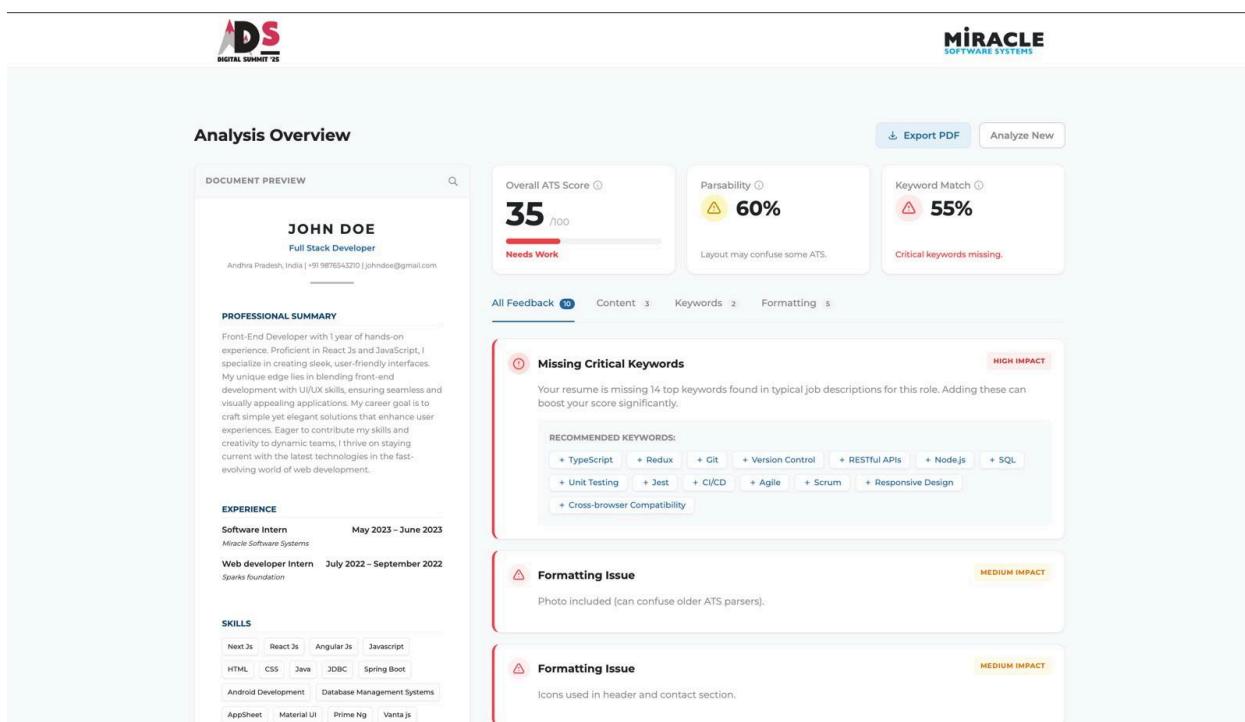
Identify missing skills critical for your target role.

Smart Feedback

Actionable advice to increase your interview chances.

## Step 7: Test the Application

- Upload a your resume PDF
- Click Analyze Resume
- Let the AI process your resume
- View:
  - Resume's ATS Score
  - Parsability
  - Keyword match
  - Detailed analysis of your resume containing feedback.



The screenshot shows the 'Analysis Overview' page of the resume analysis tool. At the top, there are three main metrics: Overall ATS Score (35/100, Needs Work), Parsability (60%, Layout may confuse some ATS), and Keyword Match (55%, Critical keywords missing). Below this, the 'DOCUMENT PREVIEW' section shows a sample resume for 'JOHN DOE', a Full Stack Developer from Andhra Pradesh, India. The 'PROFESSIONAL SUMMARY' section describes him as a Front-End Developer with 1 year of hands-on experience, proficient in React.js and JavaScript, specializing in creating sleek, user-friendly interfaces. The 'EXPERIENCE' section lists two internships: 'Software Intern' at Miracle Software Systems from May 2023 – June 2023, and 'Web developer Intern' at Sparks Foundation from July 2022 – September 2022. The 'SKILLS' section lists various technologies used. The 'All Feedback' section contains three detailed issues: 'Missing Critical Keywords' (High Impact), 'Formatting Issue' (Medium Impact), and another 'Formatting Issue' (Medium Impact).

**Hope you enjoyed analysing your resume!**