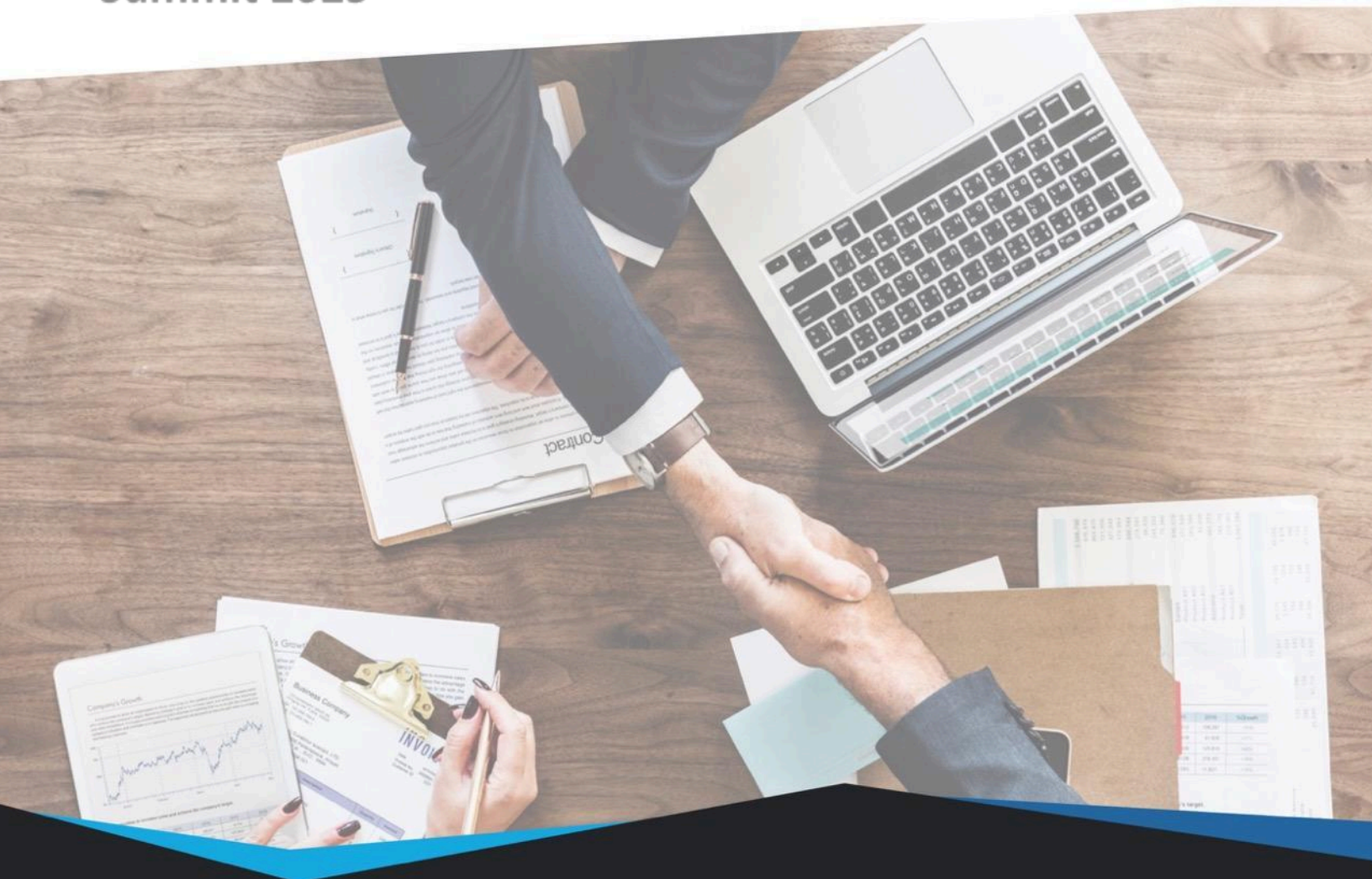




# AI-POWERED PDF RESUME ANALYZER

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)

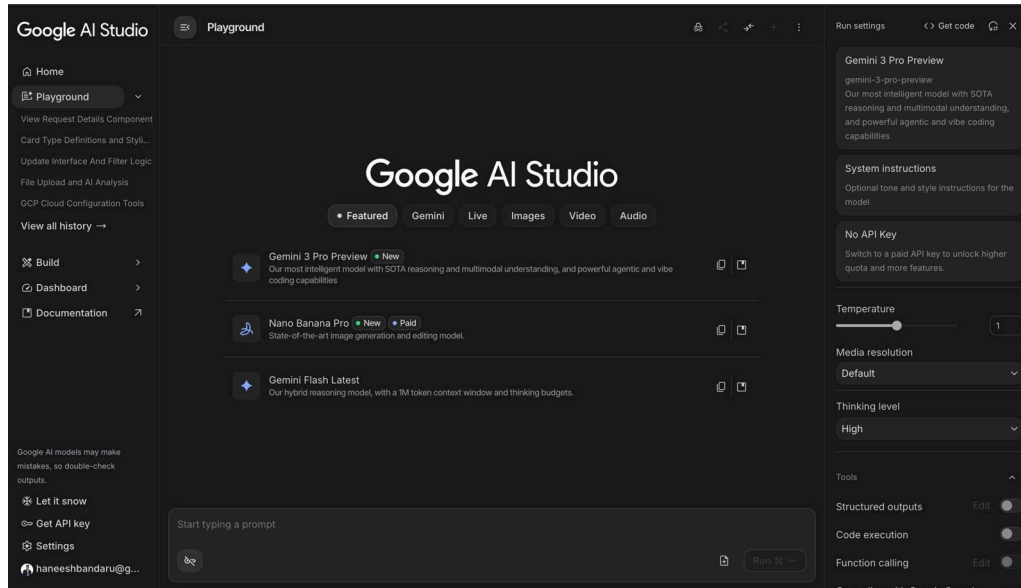
## Technology Involved

1. React
2. Google Gemini AI

## Lab Steps

### Step 1: Get Google Gemini API Key

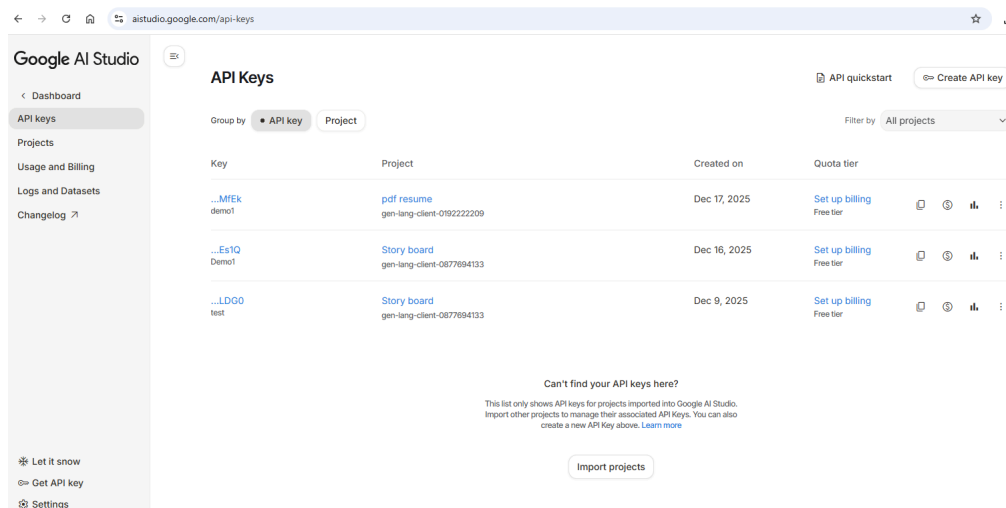
## 1. Go to Google AI Studio



## 2. Create / select a project

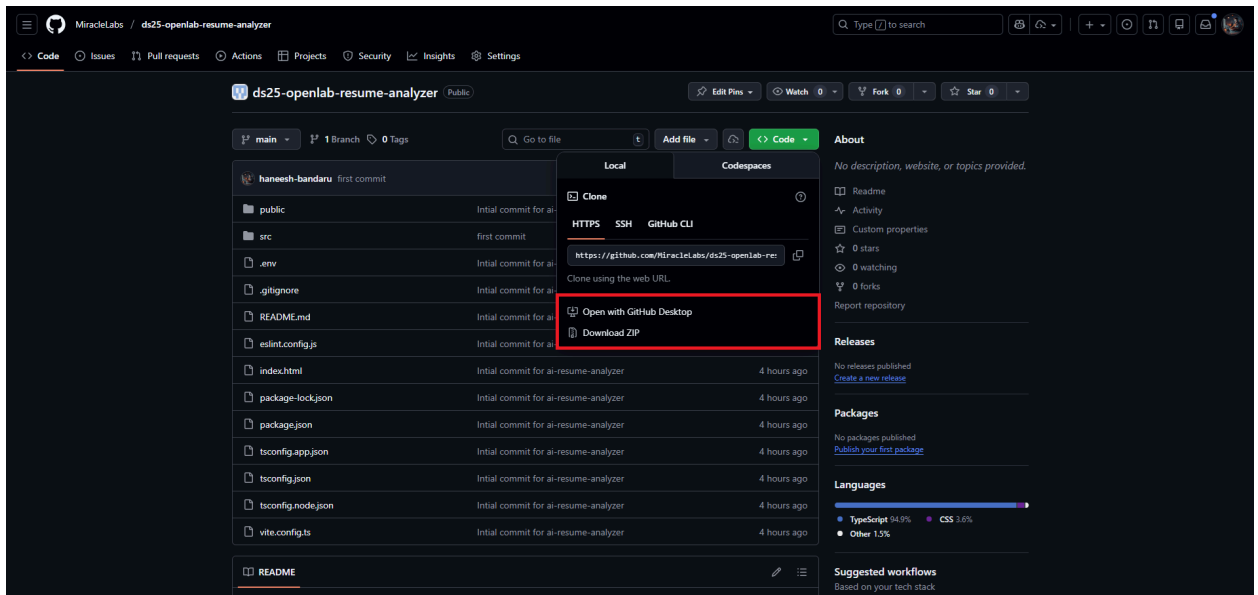
## 3. Generate an API Key

## 4. Copy the key



## 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

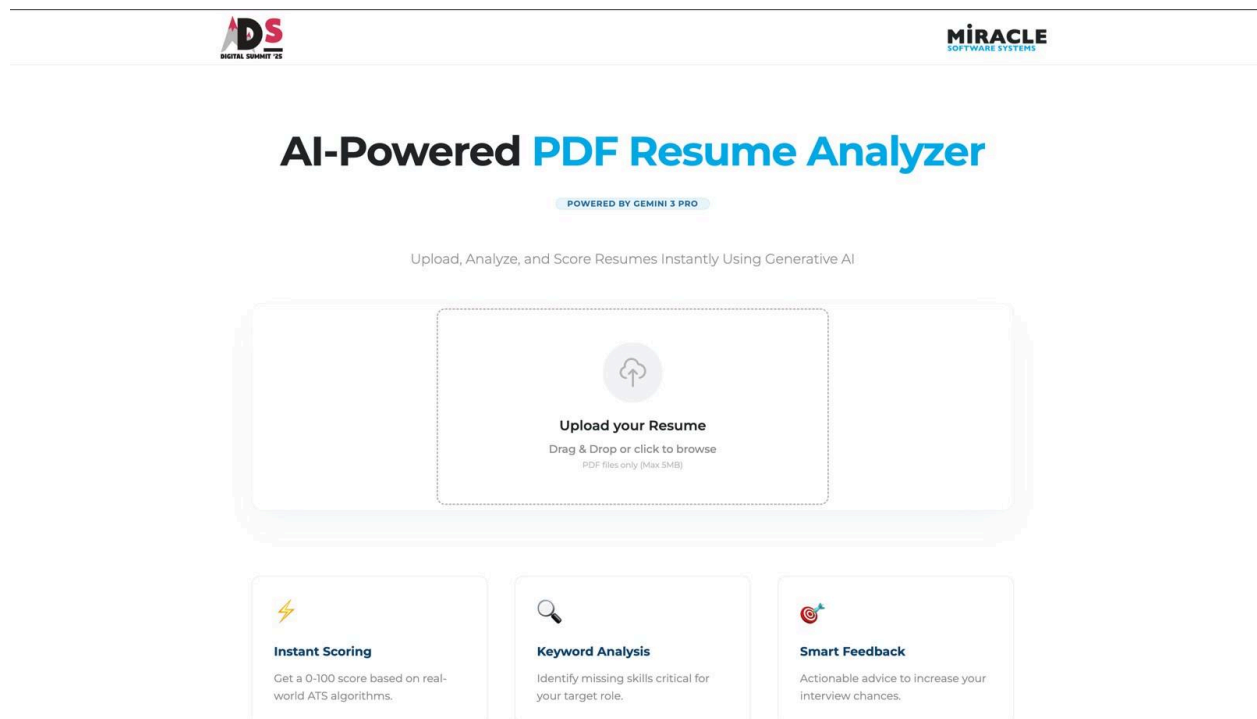
## Step 5: Run the Application

- npm run dev

## Step 6: Open in Browser

- Local URL: `http://localhost:5173`

Open this in your browser.



## 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 displays the 'Analysis Overview' dashboard for a resume belonging to John Doe, a Full Stack Developer. The dashboard is divided into several sections:

- Document Preview:** Shows the resume content, including contact information (Andhra Pradesh, India | +91 9876543210 | johndoe@gmail.com), a professional summary, experience at Miracle Software Systems and Sparks Foundation, and a list of skills (Next.js, React.js, Angular.js, JavaScript, HTML, CSS, Java, JSP, Spring Boot, Android Development, Database Management Systems, AppSheet, Material UI, Prime Ng, Vanta.js).
- Overall ATS Score:** 35 / 100, labeled 'Needs Work'.
- Parsability:** 60%, with a note 'Layout may confuse some ATS'.
- Keyword Match:** 55%, with a note 'Critical keywords missing'.
- All Feedback:** A summary of issues categorized by impact:
  - Missing Critical Keywords (HIGH IMPACT):** The resume is missing 14 top keywords found in typical job descriptions. Recommended keywords include TypeScript, Redux, Git, Version Control, RESTful APIs, Node.js, SQL, Unit Testing, Jest, CI/CD, Agile, Scrum, Responsive Design, and Cross-browser Compatibility.
  - Formatting Issue (MEDIUM IMPACT):** Photo included [can confuse older ATS parsers].
  - Formatting Issue (MEDIUM IMPACT):** Icons used in header and contact section.

Hope you enjoyed analysing your resume!