

Gemini-Pro Resume ATS System

This project utilizes Streamlit and Google's Generative AI to analyze resumes against job descriptions, providing recommendations and observations similar to an Applicant Tracking System (ATS).

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Introduction

This application uses Streamlit, a Python framework for creating web applications, to build a tool that assesses resumes against job descriptions. It leverages Google's Generative AI (Gemini Pro) to generate detailed evaluations and recommendations based on predefined prompts.

The core functionalities include:

- Analyzing uploaded resumes (in PDF or DOCX format) against specified job descriptions.
 - Providing feedback on resume details, strengths, areas of improvement, and percentage match with the job description.
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Setup

Requirements

Make sure you have the following installed:

1. **streamlit**: A framework for building interactive web applications with Python.
2. **google-generativeai**: Provides access to Google's Generative AI models for generating content based on prompts.
3. **python-dotenv**: Loads environment variables from a .env file into os.environ, making it easy to manage configurations.
4. **pillow**: Python Imaging Library to handle images.
5. **pdf2image**: Converts PDF files to images for processing.
6. **poppler-utils**: This is mainly used in order to efficiently handle usage of pdf file upload and read access and it will also try to handle 'PdfFileNotFoundError:' present if any.

Installation

1. First we need to create a environment specific to the project folder and it can be done in this way
--> conda create -p venv python==3.10 -y
 2. Then we need to activate the environment before writing the code
-> conda activate venv/
 3. After this we need to load all the required libraries into our project this can be done individually through command prompt by running it as administrator using the pip command or we can follow this simple way
-> pip install -r requirements.txt
 4. Here we also need the packages.txt file to directly install and load the poppler-utils library into the project root folder directory.
-

Input


1. **Job Description:** Enter the job description text into the input field provided and press enter to process it (load).
2. **Resume Upload:** Upload candidate resumes in PDF or DOCX format to evaluate.

Output

- **Resume Details:** Click Button1 in order to Provide extracted details and evaluations based on the provided job description.
- **Nature of Resume:** Click Button2 in order to obtain the Highlighted strengths and areas needing improvement based on the job role.
- **Resume x JD Match Percentage:** Click Button3 will Calculates the percentage match between the resume and the job description, highlighting missing keywords and skills.

Website Link Accessible: <https://7cxgvbtm2zo23ts5phtfkg.streamlit.app/>

Tell me about the resume:

Resume ATS Expert 

Job Description:


Good to have.

Good business understanding of the fintech/consumer finance space.

Experience in working with credit card / personal lending space, esp fintech.


hands on experience in working with Telecom data.

Upload your Resume(format.pdf) here...


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 3.pdf 120.9KB

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Tell me about the Resume !!

What are the Strength's and Areas of Improvement ??

Percentage Match of Applicant Resume with JD !!

Resume Details:

Charlotte May

Charlotte May

Data Scientist 123 Main Street Phoenix, AZ 85004 (123) 456-7890 username@example.com

Summary

Data Scientist with 8+ years of experience in the financial industry. Proven ability to develop and implement machine learning models to solve business problems. Strong communication and teamwork skills.

Education

- Data Science, Master of Science Arizona State University, Tempe, AZ 2014 - 2016
- Bachelor of Science in Mathematics University of Arizona, Tucson, AZ 2010 - 2014

Experience

- Senior Data Scientist Metro Phoenix, AZ 2020 - Present
- Developed and implemented machine learning models to improve the accuracy of the company's fraud detection system.
- Worked closely with the data engineering team to ensure that the models were deployed in a production environment.
- Monitored the models and made adjustments as needed.
- Senior Data Scientist Data Scientist Phoenix, AZ 2016 - 2020
- Developed and implemented machine learning models to improve the company's customer churn

production environment.

- Monitored the models and made adjustments as needed.
- Senior Data Scientist Data Scientist Phoenix, AZ 2016 - 2020
- Developed and implemented machine learning models to improve the company's customer churn rate.
- Worked with the marketing team to develop and implement targeted marketing campaigns.
- Monitored the models and made adjustments as needed.

Projects

- Developed a machine learning model to predict customer churn for a large telecommunications company. The model was able to achieve an accuracy of 95%.
- Developed a machine learning model to detect fraud for a large financial institution. The model was able to detect fraud with an accuracy of 99%.
- Developed a machine learning model to optimize the marketing campaigns for a large retail company. The model was able to increase the conversion rate by 15%.

Skills

- Python
- SQL
- Machine Learning
- Data Mining
- Data Visualization

Professional Evaluation

Charlotte May has a strong background in data science, with a Master's degree in the field and 8+ years of experience working in the financial industry. She has a proven track record of developing and implementing machine learning models to solve business problems. In her previous roles, she has successfully developed models to predict customer churn, detect fraud, and optimize marketing campaigns. She is also proficient in a variety of programming languages and tools, including Python, SQL, and machine learning libraries.

Charlotte May's skills and experience align well with the job description for a Data Scientist at [Company Name]. The job description requires a candidate with a strong background in data science, as well as experience developing and implementing machine learning models. Charlotte May has both of these qualifications, and her experience in the financial industry is a plus.

In addition to her technical skills, Charlotte May also has strong communication and teamwork skills. She is able to clearly explain complex technical concepts to non-technical audiences, and she is able to work effectively with others to achieve common goals.

Overall, Charlotte May is a strong candidate for the Data Scientist position at [Company Name]. She has the technical skills and experience required for the role, and she is also a good communicator and team player. I highly recommend her for this position.

What are the Strengths and Areas of Improvement:

Resume ATS Expert

Job Description:

What to have:

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Tell me about the Resume !!

What are the Strength's and Areas of Improvement ??

Percentage Match of Applicant Resume with JD !!

Nature of Resume:

Nature of Resume:

Strengths:

- 8+ years of experience as a data scientist, with a focus on building machine learning models for marketing and customer segmentation
- Proven ability to deliver results, with a track record of successful projects that have had a positive impact on business outcomes
- Strong technical skills, with experience in a variety of programming languages and tools, including Python, SQL, and R
- Excellent communication and teamwork skills, with the ability to effectively collaborate with both technical and non-technical stakeholders

Areas needing improvement:

- Lack of experience in the financial industry
- Limited experience in leading and managing a team
- Could benefit from additional training in machine learning and artificial intelligence

Recommendations:

- Pursue additional training in machine learning and artificial intelligence, such as a master's degree or online courses
- Gain experience in the financial industry by working on projects or taking on freelance work
- Develop leadership and management skills by taking on more responsibility at work or by

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- Pursue additional training in machine learning and artificial intelligence, such as a master's degree or online courses
- Gain experience in the financial industry by working on projects or taking on freelance work
- Develop leadership and management skills by taking on more responsibility at work or by volunteering for leadership positions in community organizations

In-demand skills:

- Machine learning
- Artificial intelligence
- Data science
- Cloud computing
- Full-stack web development
- Graphic design
- DevOps

Recommended courses:

- Machine Learning A-Z™: Hands-On Python & R In Data Science
- The Complete SQL Bootcamp 2023: Go from Zero to Hero
- The Complete Python 3 Course: Go from Beginner to Advanced
- The Complete Web Developer Course 2.0: Build 15 Projects
- The Complete Graphic Design Course: Master Photoshop, Illustrator, InDesign & more

- DevOps

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- The Complete Graphic Design Course: Master Photoshop, Illustrator, InDesign & more
- The Complete DevOps Course: CI/CD, Docker, Kubernetes, AWS, Linux & More

Projects:

- Build a machine learning model to predict customer churn
- Develop a data visualization dashboard to track marketing campaign performance
- Create a web application that allows users to create and share data visualizations
- Design a graphic for a social media campaign
- Set up a continuous integration/continuous deployment (CI/CD) pipeline for a web application
- Deploy a machine learning model to a production environment

Percentage Match of Applicant Resume with JD:

Resume ATS Expert

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Tell me about the Resume !!

What are the Strength's and Areas of Improvement ??

Percentage Match of Applicant Resume with JD !!

Resume x JD Match Percentage:

The resume matches 65% with the job description.

Keywords and skills from the job description that are missing in the resume:

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The resume matches 65% with the job description.

Keywords and skills from the job description that are missing in the resume:

Expertise in Big Data/ML:

- Should be able to build cutting edge credit/churn/usage models using advanced algorithms in a big data/Machine Learning environment.
- Should have hands on experience and track record of delivering projects in individual capacity.

Process oriented:

- Should help in building a process that maximizes operating efficiency while maintaining risk across multiple lending cycles.
- There needs to be an obsession with collecting and analyzing data to drive business iterations and improvements.

Team Leadership:

- Should have a track record of leading people effectively functionally driving deliverables as well as nurturing, motivating, and developing the team to drive employee engagement.

Willingness to go above and beyond:

- For start-ups, the responsibilities and needs of the business change quickly.
- We're looking for someone who is not afraid to take on calculated risks and can deal with ambiguity.

Required Qualifications & Skills:

- Solid expertise in end-to-end risk model lifecycle management (develop, deploy, monitor)

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- Solid expertise in end-to-end risk model lifecycle management (develop, deploy, monitor)
- Previous hands on in credit, fraud, churn model development and deployment
- Previous experience in PD/EAD/LGD model development/validation
- Experience in CSI/PSI model monitoring process.
- Hands on experience in data extraction using SQL/Pyspark SQL; data cleaning, feature creation and building models using Py Spark/Python on Spark; Scale will be a plus.
- Experience leading a data science team with functional ownership/responsibilities.
- Previous exposure to below algorithms (preferably multiple):
- Logistic Regression
- Random forest
- XGBOOST
- Markov Chain
- PSI/CSI for model monitoring
- Strategy performance tracking and swap in / swap out analysis.
- Strong entrepreneurial drive.

Good to have:

- Good business understanding of the fintech/consumer finance space.
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- hands on experience in working with Telecom data.

Overall fit of the resume for the specified job role:

The candidate's resume is a good fit for the specified job role. The candidate has the required experience and skills, and is also a good fit for the company culture.