



#### Sarvajanik College of Engineering and Technology

Department Name: Artificial Intelligence And Data Science

Subject: Project-II Code: BTAI16803

# AI/ML Internship

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Supervised By: Prof. Karuna Patel



# Company Details

- Company name: Hyeon Infotech
- **Provided services:** Android Application Developement, iOS Application Development, Graphics Designing, and UI/UX Designing.
- Website URL: https://hyeoninfotech.com/
- No. of Employees: 10-15
- Company Address: 1076-1077, Silver Business Point, VIP Cir, Uttran, Surat, Gujarat 394105



# Role and Responsibilities in Company

- Position: AI Engineer Intern
- **Key Responsibilities:** Learn about new technologies and cuttingedge AI tools, then use them to solve issues and complete projects in the real world.



#### Introduction

- During my internship, I developed both front-end and back-end applications utilising contemporary frameworks, gaining practical expertise in AI, machine learning, and web development.
- Used Python tools like NumPy, Pandas, and TensorFlow to investigate important AI ideas including natural language processing, computer vision, and deep learning.
- Used abilities in data preprocessing, model training, and evaluation to work on real-world projects involving categorisation, predictive modelling, and AI-driven online applications.



### Motivation

- **Practical Experience:** To improve my coding and problem-solving abilities, apply theory to actual tasks. Discuss identified limitations of existing work/methods.
- Exposure to the Industry: Work with professionals to discover cutting-edge AI trends and best practices.
- Career Development: For a prosperous tech career, have a solid network and portfolio.
- **Research & Innovation:** Take part in creative initiatives and test out state-of-the-art AI.



# Technologies Learned

- Web Development: HTML, CSS, Java Script, React.js (Frontend development).
- **Python Libraries:** NumPy, Pandas, TensorFlow, PyTorch, Scikitlearn, NLTK.
- Machine Learning & AI: Deep Learning, NLP, Computer Vision Data Visualization: Matplotlib, Seaborn
- AI & Deep Learning: Deep Learning, Transformer Models, LLMs, Agentic AI, LangChain



# Technologies Learned

- Backend & APIs: Flask, Python, Usage of APIs, MongoDB.
- **Deployment & Cloud:** Website Deployment, Cloud Deployment, Scalable AI Systems, Data storage in Cloud.

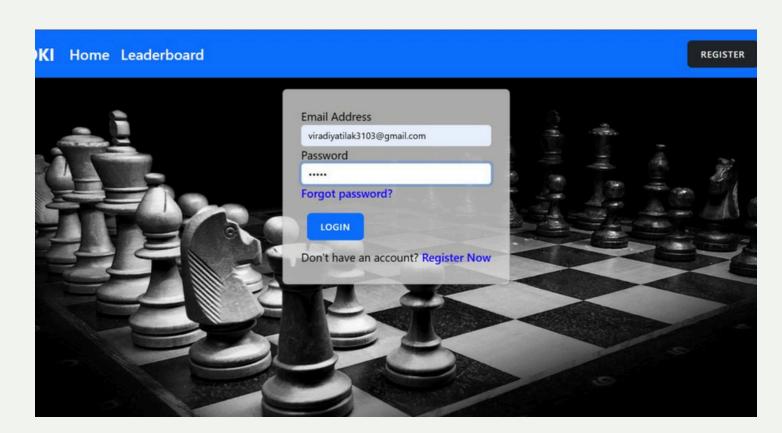


#### **Real-Time Chess Platform**

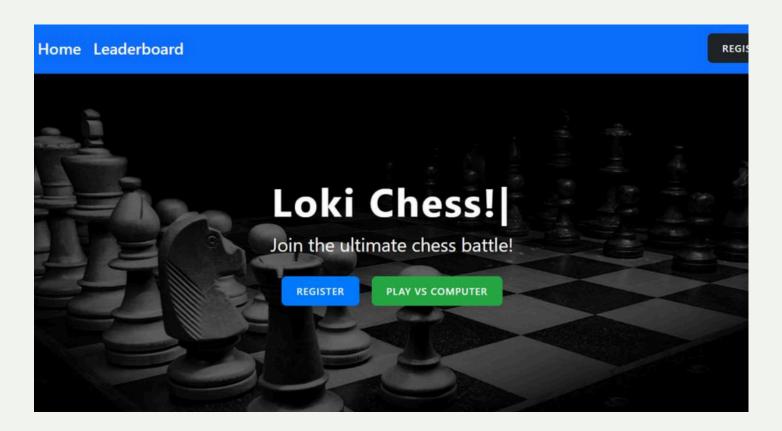
- **Objective**: Real-time chess app to play against friends, AI, or random users with live leaderboard tracking.
- **Tech Stack**: React.js, Tailwind CSS, Node.js, Express.js, MongoDB, Socket.IO, Stockfish, Render/Vercel.
- **Key Features**: Play chess with AI/friends/random, real-time multiplayer with chat, live leaderboard, user dashboard.



• Outcome: Delivered smooth real-time gameplay, scalable MERN stack app, and engaging chess experience with live rankings.

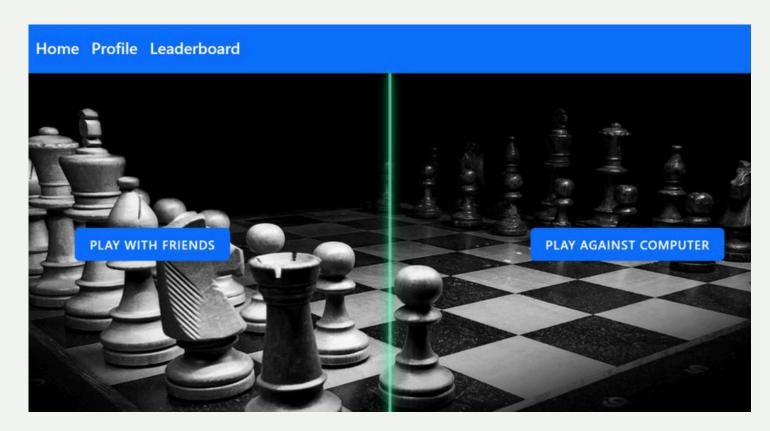


Login/Signup Page



**Home Page** 





**Choose opponents** 



Game Page

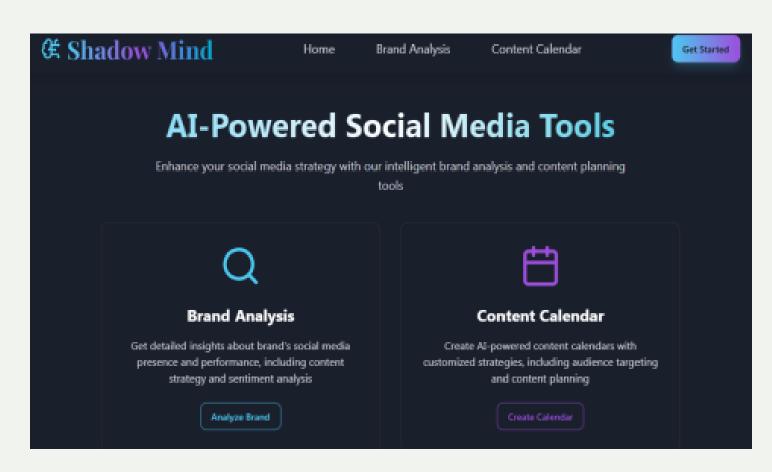


#### AI Brand Analyzer & Content Planner

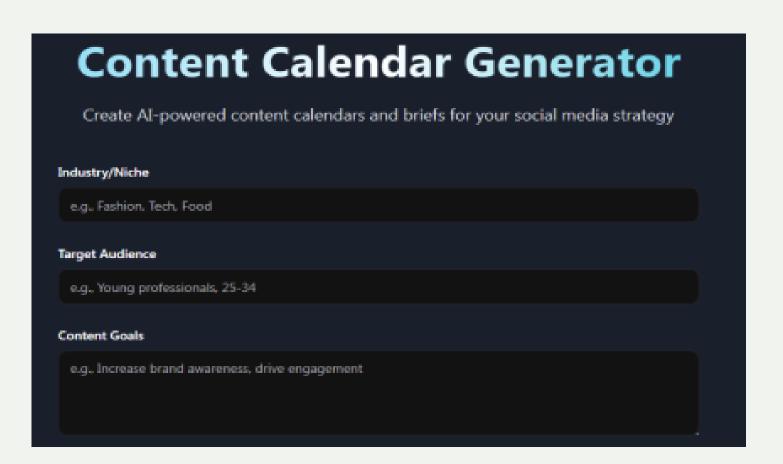
- **Objective**: Analyzes a brand's online presence and generates Albased content with a smart content calendar.
- **Tech Stack**: Groq, LLaMA, Seaper, React.js, Node.js, Express.js, MongoDB/PostgreSQL, Render/Vercel.
- **Key Features**: Brand sentiment tracking, AI post generator, auto-filled content calendar, insights dashboard, secure team login.



• Outcome: Enabled brands to monitor their online reputation and automate content creation with smart scheduling.

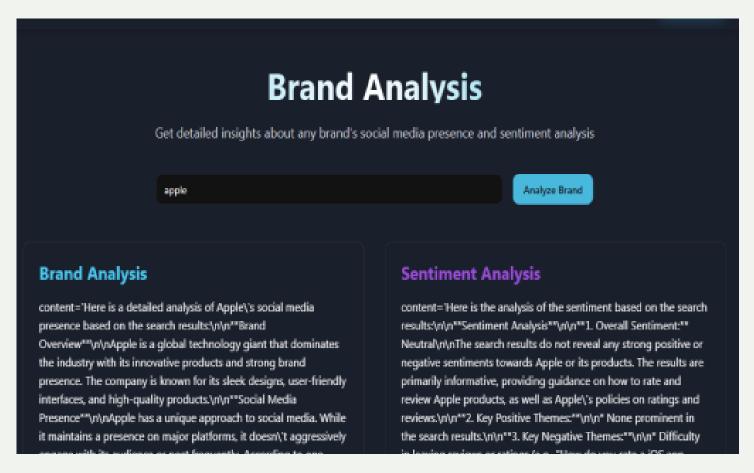


**Home Page** 



**Content Calendar Page** 





#### **Brand Analysis**

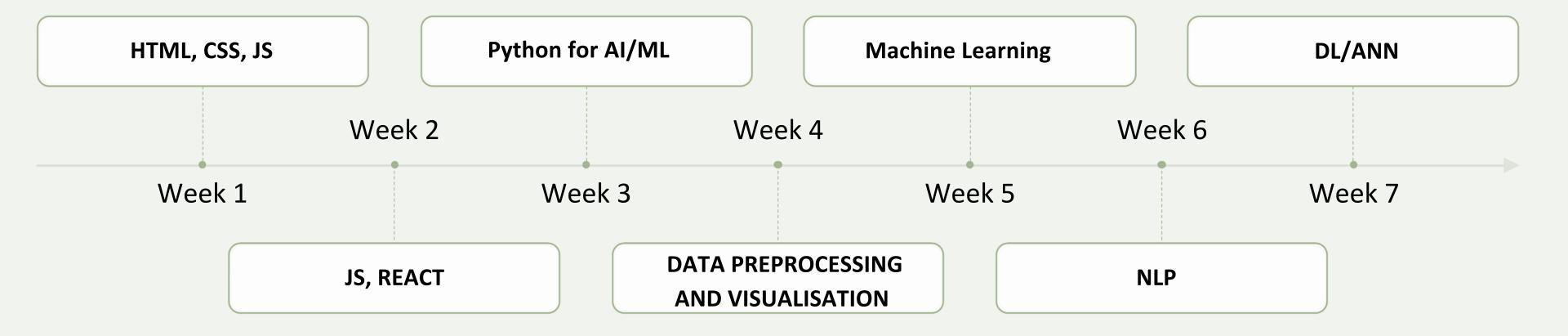
#### **Trend Analysis**

content='Here is the analysis of content trends for food targeting the 25-34 age group based on the provided search results:\n\n\*\*Trending Content Formats (Top 5)\*\*\n\n1. \*\*Statistics-based content\*\*: The search results suggest that content featuring statistics, data, and facts about food, restaurants, and social media is popular among the 25-34 age group.\n2. \*\*Listicles\*\*: Articles and blog posts featuring lists of trends, facts, or tips related to food and restaurants are likely to perform well with this age group.\n3. \*\*Research-based content\*\*: In-depth research studies and data-driven reports on food trends, preferences, and behaviors are likely to resonate with this age group.\n4. \*\*Social media-focused content\*\*: Content that explores the intersection of food, restaurants, and social media, including statistics, trends, and strategies, is popular among this age group.\n5. \*\*Gen Z and Millennial-focused content\*\*: As the search results suggest, content that caters to the preferences and behaviors of Gen Z and Millennials, such as food trends and restaurant experiences, is likely to perform well.\n\n\*\*Popular Topics and Themes\*\*\n\n1. \*\*Food trends and preferences\*\*: Content that explores current food trends, preferences, and behaviors among Gen Z and Millennials is popular.\n2. \*\*Restaurant marketing and social media\*\*: Topics related to restaurant marketing, social media strategies, and statistics are of interest to this age group.\n3. \*\*Gen Z and Millennial behaviors\*\*: Content that delves into the behaviors, preferences, and habits of Gen Z and Millennials, particularly in the context of food and restaurants, is popular.\n4. \*\*Social media statistics and trends\*\*: Content featuring statistics and trends about social media usage, growth, and marketing is likely to resonate with this age group.\n5. \*\*Restaurant experiences and technology\*\*: Topics related to restaurant experiences, including technology, apps, and innovations, are of interest to this age group.\n\n\*\*Successful Content Examples\*\*\n\n1. "Restaurant Social Media Statistics [2025]: Trends Shaping the Industry" (Cropink)\n2. "Gen Z And Millennial Food & Restaurant Trends [Data Study]" (Toasttab)\n3. "55 Social Media Statistics For 2025: Trends, Shopping & AI Stats" (Digital Silk)\n4. "80+ Must-Know Social Media Marketing Statistics for 2025" (Sprout Social)\n5. "Restaurant Social Media Statistics and Facts (2025)" (Electro IQ)\n\n\*\*Best Posting Times and Frequency\*\*\n\nBased on general social media best practices, here are some recommendations for posting times and frequency:\n\n\* Posting times: 12 pm, 3 pm, and 5 pm EST (when users are likely to be taking breaks or commuting)\n\* Posting frequency: 3-5 times per week, depending on the platform and audience engagement\n\n\*\*Platform-Specific Trends\*\*\n\n1. \*\*Instagram\*\*: Visual, engaging, and interactive content featuring food, restaurants, and behind-the-scenes moments is likely to perform well.\n2. \*\*Facebook\*\*: Longer form content, such as articles and research studies, may perform better on Facebook, which tends to skew older.\n3. \*\*Twitter\*\*: Short, snackable content, such as statistics, facts, and quick tips, is well-suited for Twitter\'s fast-paced environment.\n4. \*\*LinkedIn\*\*: Content focused on restaurant marketing, social media strategies, and industry trends may perform well on LinkedIn, which is popular among professionals.\n5.

#### **Trend Analysis**

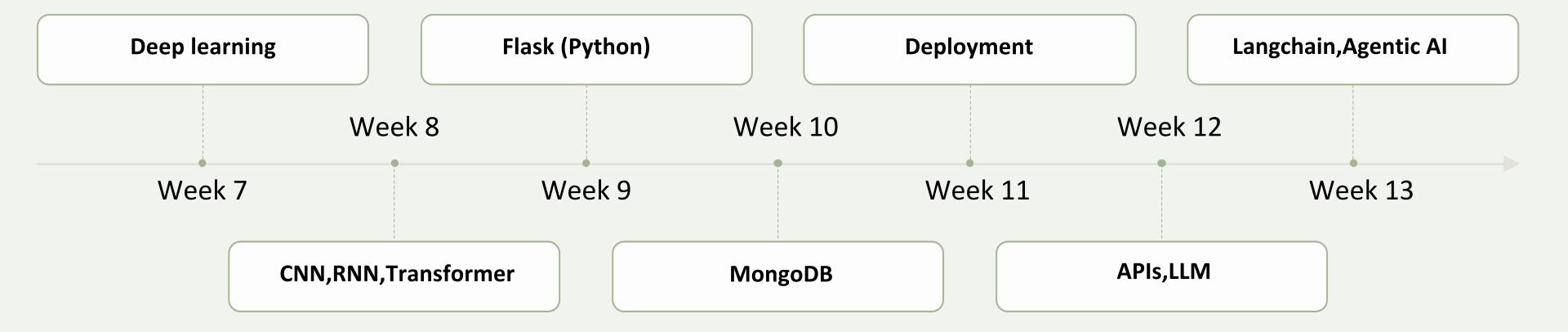


# Timeline Chart for Internship Work





# Timeline Chart for Internship Work





#### Future Work

- **Deepen Knowledge of LLMs:** Explor more about GPT, BERT, and transformer models for advanced AI applications.
- Master Prompt Engineering: Improve interaction with AI models using LangChain and custom prompts.
- Enhance Deployment Skills: Learn Docker, Kubernetes, and CI/CD pipelines for scalable deployment.
- Expand Cloud & API Integration: Work with cloud platforms (AWS, GCP) and build robust API-based systems.
- Advance in AI Tooling: Use tools like Hugging Face, Pipenv, and vector databases for real-world AI solutions.



# THANK YOU