



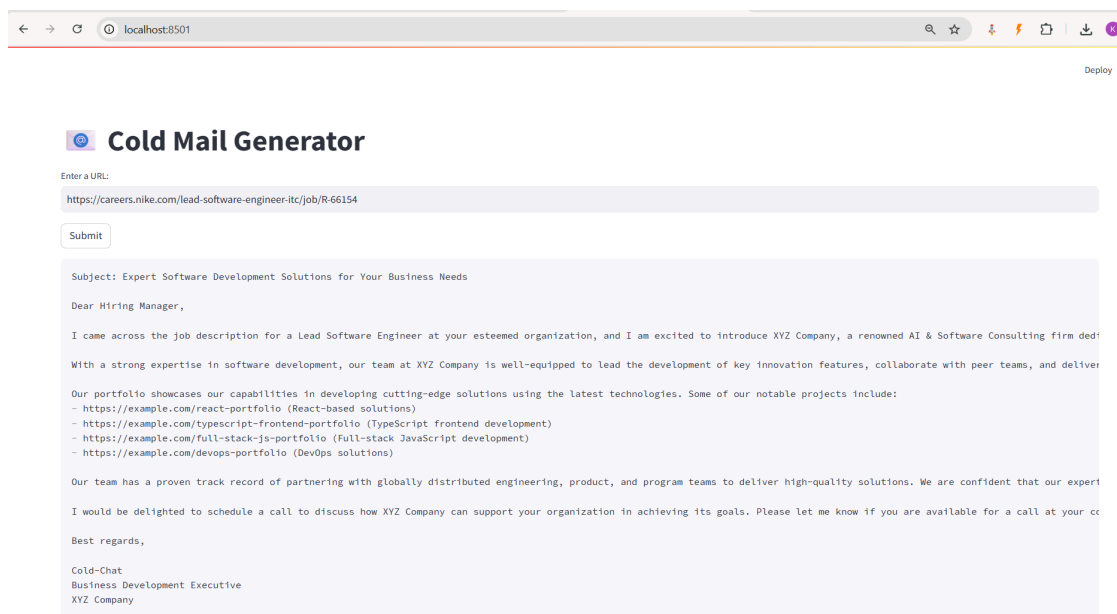
# ColdReach AI

**Github repo:**

[https://github.com/KhawajaAbdullah2000/Gen\\_AI\\_Cold\\_Email\\_Generator](https://github.com/KhawajaAbdullah2000/Gen_AI_Cold_Email_Generator)

## 1. Project Overview

**ColdReach AI** is an intelligent lead-generation assistant tailored for service-based companies looking to engage with businesses posting job vacancies. It scrapes job listings from a target company's careers page and crafts highly personalized cold emails. These emails reference relevant portfolio links based on the required tech stack, using vector similarity search to match experience with opportunity.



## 2. Problem It Solves

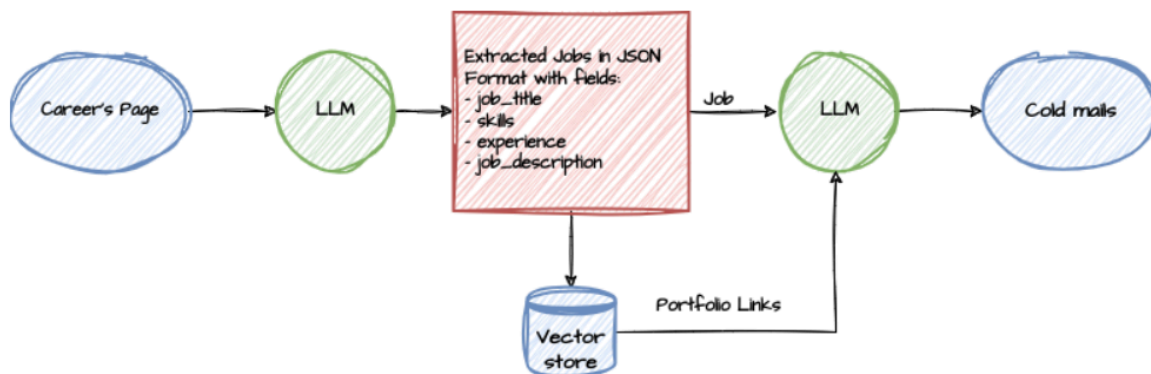
Traditional cold emails often lack personalization, leading to poor response rates.

**ColdReach AI** solves this by:

- Automatically understanding job requirements.
- Dynamically generating tailored outreach emails.
- Attaching matching project/portfolio examples, increasing trust and conversion likelihood.

### 3. Technology Stack

Component	Technology Used
LLM	Groq (LLaMA 3.3 70B Versatile)
Web Framework	Streamlit
Prompt Chaining	LangChain
Vector Search Engine	ChromaDB
File/Env Management	dotenv, pandas
Portfolio Storage	CSV + ChromaDB



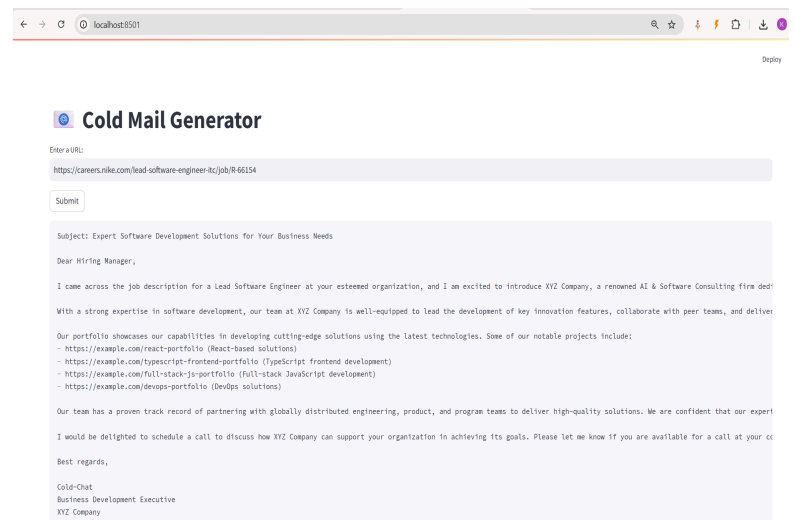
### 4. Key Features

- 🔗 **Input URL** of any careers page with job postings.
- 🧠 **LLM-Driven Job Extraction:** Uses LLaMA 3.3 via Groq to extract job details like role, skills, and description.
- ✉️ **Cold Email Generator:** Auto-writes personalized business outreach emails.
- 🔍 **Vector-Based Matching:** Finds the most relevant case studies from a local portfolio database based on required skills.

-  **Streamlit UI:** Simple web interface for input and output display.

## 5. How It Works

1. **User inputs URL** of a target company's careers page.
2. The app **scrapes and cleans** the page content.
3. The LLM **extracts job postings** in structured format.
4. For each job:
  - ChromaDB is queried with required skills.
  - **Top 2 relevant portfolio links** are retrieved.
  - The LLM **writes a cold email**, referencing the job and portfolio.
5. Streamlit displays the final email(s) for copying or saving.



**Cold Mail Generator**

Enter a URL:

<https://careers.nike.com/lead-software-engineer-etc/job/R-66154>

Submit

Subject: Expert Software Development Solutions for Your Business Needs

Dear Hiring Manager,

I came across the job description for a Lead Software Engineer at your esteemed organization, and I am excited to introduce XYZ Company, a renowned AI & Software Consulting firm dedicated to helping businesses like yours achieve their goals.

With a strong expertise in software development, our team at XYZ Company is well-equipped to lead the development of key innovation features, collaborate with peer teams, and deliver high-quality solutions that drive your business forward.

Our portfolio showcases our capabilities in developing cutting-edge solutions using the latest technologies. Some of our notable projects include:

- <https://example.com/react-portfolio> (React-based solutions)
- <https://example.com/typescript-frontend-portfolio> (TypeScript frontend development)
- <https://example.com/full-stack-js-portfolio> (Full-stack JavaScript development)
- <https://example.com/devops-portfolio> (DevOps solutions)

Our team has a proven track record of partnering with globally distributed engineering, product, and program teams to deliver high-quality solutions. We are confident that our expert developers can help you achieve your business goals.

I would be delighted to schedule a call to discuss how XYZ Company can support your organization in achieving its goals. Please let me know if you are available for a call at your convenience.

Best regards,

Cold-Chat  
Business Development Executive  
XYZ Company