

AI-READINESS CHALLENGE REPORT - LEADGEN PRO

Objective:

To enhance the lead generation process by building a fast, elegant tool that extracts valuable company data from any domain, while improving accuracy, usability, and user experience within 5 hours.

Model & Tech Stack:

This project is not based on a machine learning model but instead focuses on data extraction, email verification, and smart automation using:

- Python, Streamlit for the web interface
- Requests and BeautifulSoup for web scraping
- Abstract Email Validation API to verify company emails
- ReportLab for dynamic PDF generation
- Pandas for CSV export and data structure

Features Replicated & Improved:

From the SaaSquatchLeads tool, the following core features were selected and improved:

- **Domain-based Data Enrichment:** Extracts IP address, site title, LinkedIn URL, and info@company.com email, Performs email validation via API and Displays output instantly with polished UI.
- **Export Capabilities:** Download results as CSV and professional-grade PDF and Enables offline storage or CRM upload in seconds.
- **UI/UX Enhancements:** Streamlit-based dark UI with centered layout and clear flow and Improved readability (fonts/colors), button states, and data presentation.

Data Preprocessing:

1. Extracts domain from user input and ensures validity.
2. Applies `socket.gethostbyname()` for IP retrieval.
3. Performs HTTP GET requests and parses the `` using BeautifulSoup.4. Constructs LinkedIn URL using domain prefix.5. Verifies email using Abstract API and marks as or </div><div data-bbox="56 727 217 745" data-label="Section-Header"><h2>Business Value:</h2></div><div data-bbox="56 756 197 773" data-label="Section-Header"><h3>This tool offers:</h3></div><div data-bbox="86 783 673 853" data-label="List-Group">1. Faster lead qualification by extracting key data points automatically.2. Better email success rate with real-time verification.3. Enhanced team efficiency via export-ready data.4. No-code UX so even non-technical sales users can run it.</div><div data-bbox="56 863 168 884" data-label="Section-Header"><h2>Summary:</h2></div><div data-bbox="56 892 951 947" data-label="Text"><p>LeadGen Pro is an AI-adaptive lead scraping tool developed in ~5 hours. It mirrors key SaaSquatch functionality while improving validation, export, and usability. It is deployable, scalable, and business-aligned supporting Caprae Capital's mission of post-acquisition transformation through AI.</p></div>