

Caprae Capital Internship Challenge

Automated IT Lead Generation and Cold Email Drafting System for B2B Outreach in Los Angeles

Comprehensive Report on Scraping, Contact Extraction, and Email Automation

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What Was the Goal of This Project?

The objective of this project was to automate and streamline the process of generating leads for **Caprae Capital** by targeting **IT companies in Los Angeles**. The tool was designed to:

- Search for companies using **Google Maps**.
- Visit their **websites** and extract **contact emails**.
- Generate a **cold email message** automatically.
- Present the results in a **user-friendly format**.
- Save all the data in a **CSV file** for further use.

This eliminates manual work, provides real-time data, and delivers outreach-ready content to help Caprae Capital connect with potential business partners efficiently.

What Does the System Do? (Step-by-Step)

1. Launch App with User Interface

A simple GUI window opens where the user can type their search (e.g., "IT companies in Los Angeles").

2. Automated Google Maps Search

The tool launches Google Maps using an automated Chrome browser, types the search term, and scrolls through listings.

3. Extracts Company Data

For each business listed:

- The tool clicks on the company profile.
- If a website is available, it captures the link.

4. Visits Company Website

The script visits each website and searches for email addresses using:

- `mailto:` links
- Plain email text via regex

5. Generates Cold Email

When an email is found, the system creates a personalized cold email with the company's name, written professionally for outreach.

6. Displays & Saves Results

The results (Company Name, Website, Email, Cold Email) appear in a table and are also saved in a CSV file: `scraped_data.csv`.

Example Output

Company Name	Website	Email	Cold Email
L+R Los Angeles	http://levinriegner.com/	info@levinriegner.com	[Auto-generated cold email content]

Technologies Used

- **Selenium** – Automate browser actions
- **tkinter** – Create basic GUI
- **BeautifulSoup + Requests** – Scrape content from websites
- **pandas** – Save structured data to CSV
- **re (regex)** – Find emails in text
- **ChromeDriver** – Connect Selenium with Chrome
- **ActionChains** – Handle dynamic page interactions

Files You Will Receive

The system generates a file named:

- `IT_Companies_LA_Caprae.csv`

This file contains:

- Company Name
- Website
- Email
- Cold Email

Why This Is Helpful for Caprae Capital

- **Fully Automated:** No manual search or copy-pasting
- **Time-Saving:** Executes in minutes
- **Professional Outreach:** Cold emails are personalized
- **Data-Ready:** Clean and structured data output
- **Scalable:** Usable across cities/industries

Limitations

- Some websites do not list public emails
- Bot protection may block scraping
- Email templates are basic (but customizable)
- Only top 5 results are scraped (adjustable)
- ChromeDriver setup is required

Future Improvements

- Add threading for non-blocking GUI
- Allow adjustable result count from GUI
- Implement auto-email sending via SMTP
- Improve GUI with branding elements
- Export polished Excel reports

Final Thoughts

This lead generation tool is tailored for Caprae Capital's B2B outreach. It simplifies a complex task into a fast and automated workflow. Easily reusable and scalable — a powerful asset for future marketing and partnerships.

Thank you for the opportunity to build this tool! If you'd like a live demo, I'd be happy to assist.