1. **Query Restrictions:** The search queries you're using to find LinkedIn profiles might not always produce relevant results. Google Custom Search may not be able to find matches for all the search queries in your loop. You might want to manually check some of the search queries that didn't yield results to ensure they're properly formed.
2. **Google Custom Search Behavior:** Google Custom Search might sometimes return fewer results than expected due to its search algorithms and indexing behavior. It's not always guaranteed that every search query will yield a result.
3. **LinkedIn Profile Visibility:** LinkedIn profiles might have various privacy settings that could affect whether they show up in search results. Some profiles might be set to private or have limited visibility, making them harder to find through Google search.
4. **Rate Limiting:** If you're making multiple requests in a short period, Google's API might apply temporary rate limiting on your requests. This could cause you to receive fewer results than expected.
5. **API Key Rotation:** Your code rotates through a list of API keys from the **api\_keys** list. If one or more of these keys are not valid or not properly authorized, they might result in failed requests and therefore fewer results.

Solution:

1. **Refine Search Queries:** Experiment with different variations of search queries. Sometimes, using different combinations of name, company, and position might yield better results. Ensure that your search queries are accurate and specific to the profiles you're trying to find.
2. **Use Multiple Data Sources:** Google Custom Search might not always be the most comprehensive source. You can consider using other search engines or APIs that specialize in finding LinkedIn profiles. However, make sure you're using reputable and legitimate sources.
3. **Use LinkedIn API (if possible):** If LinkedIn offers an official API for extracting data, consider using that. LinkedIn's official API is more likely to provide accurate and reliable data. Be sure to review and adhere to LinkedIn's API usage policies.
4. **Implement Error Handling:** Enhance your error handling to capture specific errors and responses from the API. This way, you can understand why certain queries are failing and adjust your approach accordingly. Some errors might be due to rate limiting, while others could be related to incorrect API key configuration or invalid search queries.
5. **Rotate IP Addresses:** If you have access to multiple IP addresses, you can rotate them to avoid getting blocked due to excessive requests from a single IP address.
6. **Diversify LinkedIn Profile Information:** Instead of relying solely on company name and position, you can try searching with a wider variety of information, such as university names, specific skills, location, etc. This could yield profiles that match your criteria more accurately.
7. **Use LinkedIn Advanced Search:** Instead of relying solely on Google Custom Search, consider using LinkedIn's own advanced search functionality. This might provide you with more accurate and relevant results.
8. **Consider LinkedIn Scraper Tools:** There are third-party LinkedIn scraper tools that are specifically designed to extract data from LinkedIn profiles. However, make sure to review the terms of service and legality of using such tools.
9. **Review LinkedIn Privacy Settings:** Profiles with strict privacy settings might not appear in search results. Consider reaching out to LinkedIn users and asking them to adjust their privacy settings to allow better visibility.