Job Search Bot

A Telegram bot for job hunting in Denmark

Job search + AI comparison with your CV + ready-to-use application documents

Do not enter sensitive information — never send your CPR number (Danish personal ID) or similar data to the bot.

What it is

A Telegram bot that searches for jobs in Denmark, compares them with your CV using AI, and drafts ready-to-use application documents — so you don't have to do it by hand every time.

How it searches for jobs

The bot fetches jobs directly from Jobindex.dk and Jobnet.dk (Denmark's official public job portal) based on your search terms, with an option to filter by city. Results from several sources are merged, and duplicates are removed automatically.

How it compares with your CV

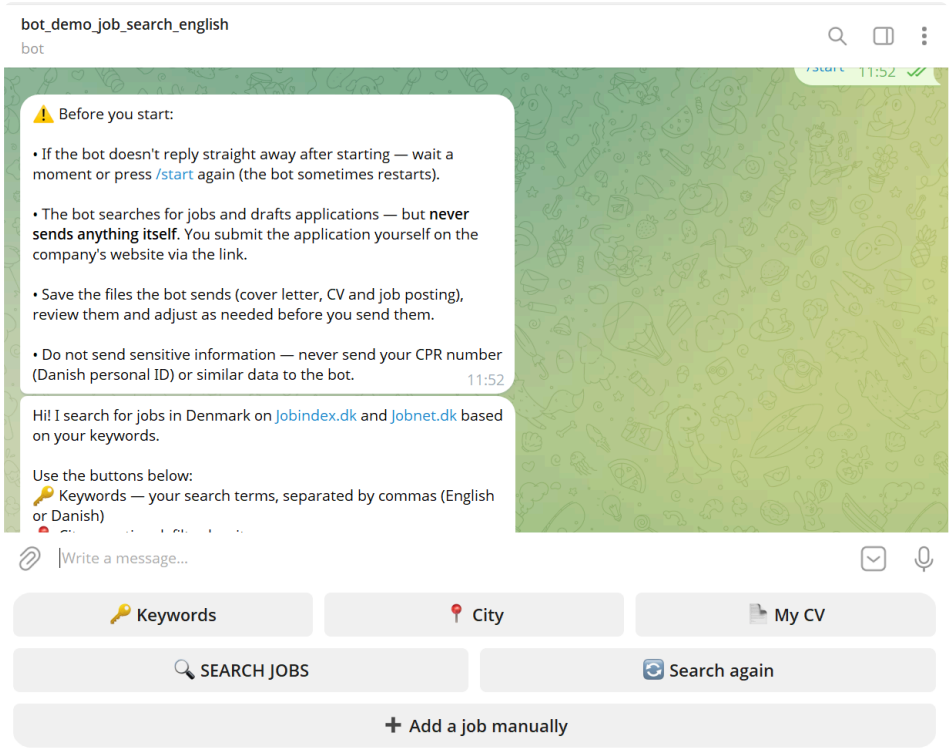
It isn't just a search for matching words. The bot sends both your CV and each job posting to an AI model (Google Gemini) and asks it to assess the substance, not just formal overlap:

- Whether your experience really matches the core tasks of the role
- Whether there is a genuine professional overlap, or only a superficial technical similarity
- What specifically matches, and what is missing

The result is a match percentage (0–100%) with a short explanation. If the CV has no relevant experience for the role, the bot honestly shows 0% — no "consolation percentages". The job still stays on the list — whether to apply is always the person's own choice.

Getting started

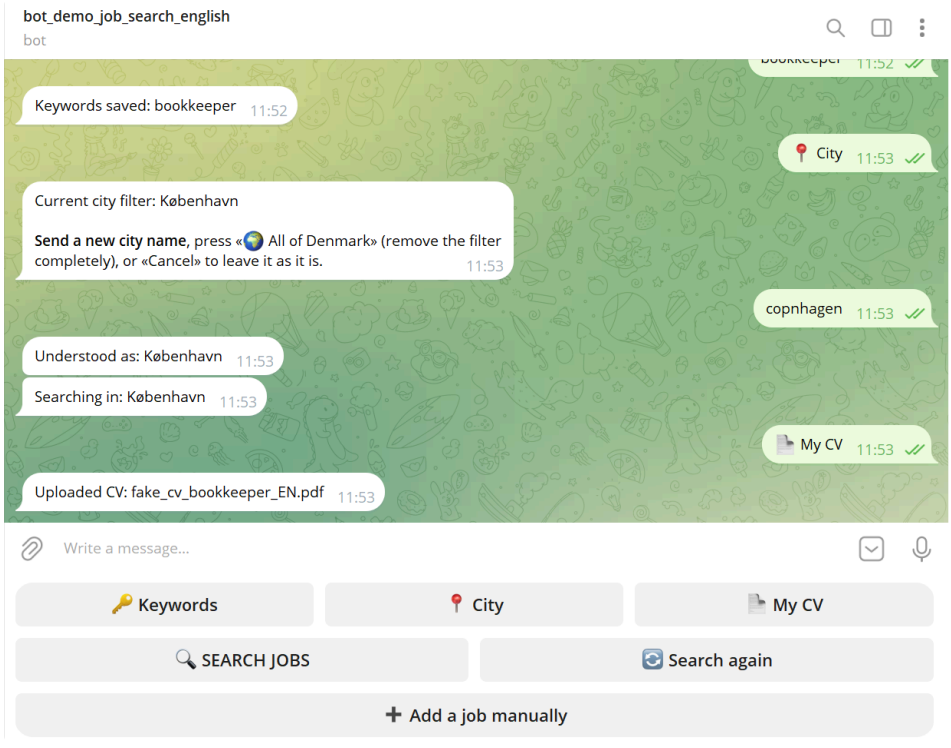
No setup beyond what the bot asks for itself: search terms (in English or Danish), an optional city and a CV (PDF or Word). The bot guides you step by step with buttons, so you don't need to remember any commands.



Welcome message with the most important disclaimers, plus the menu with the fixed buttons.

City names: English names and typos are understood

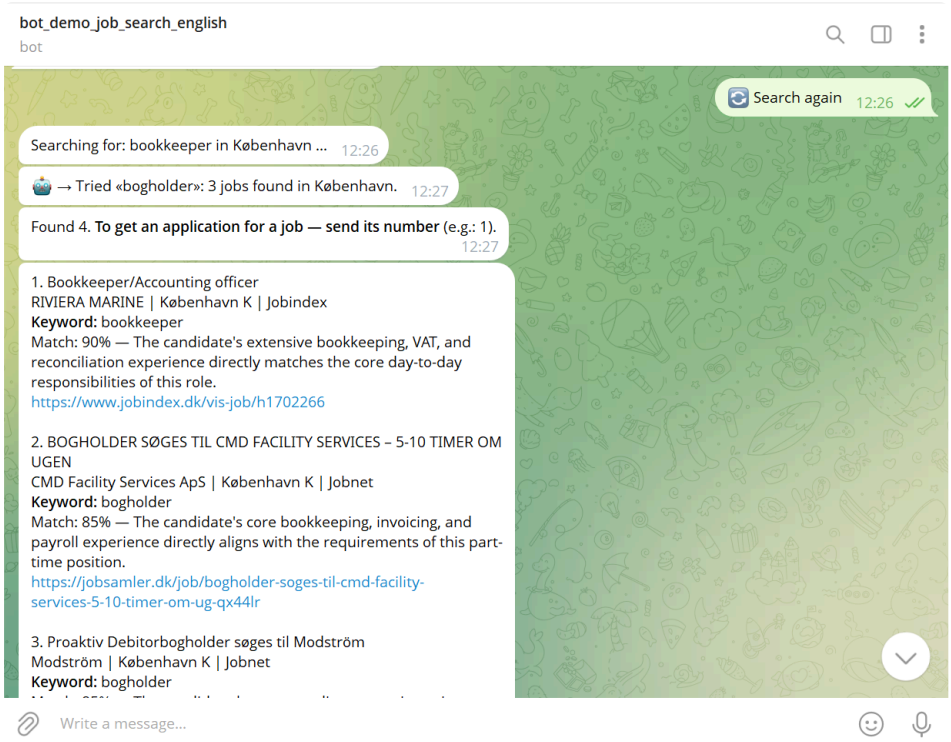
No AI guesswork here — a reliable lookup against the official list of Denmark's 99 municipalities, plus the English names people are likely to type. Even a typo in an English name ("copnhagen") is recognised as København.



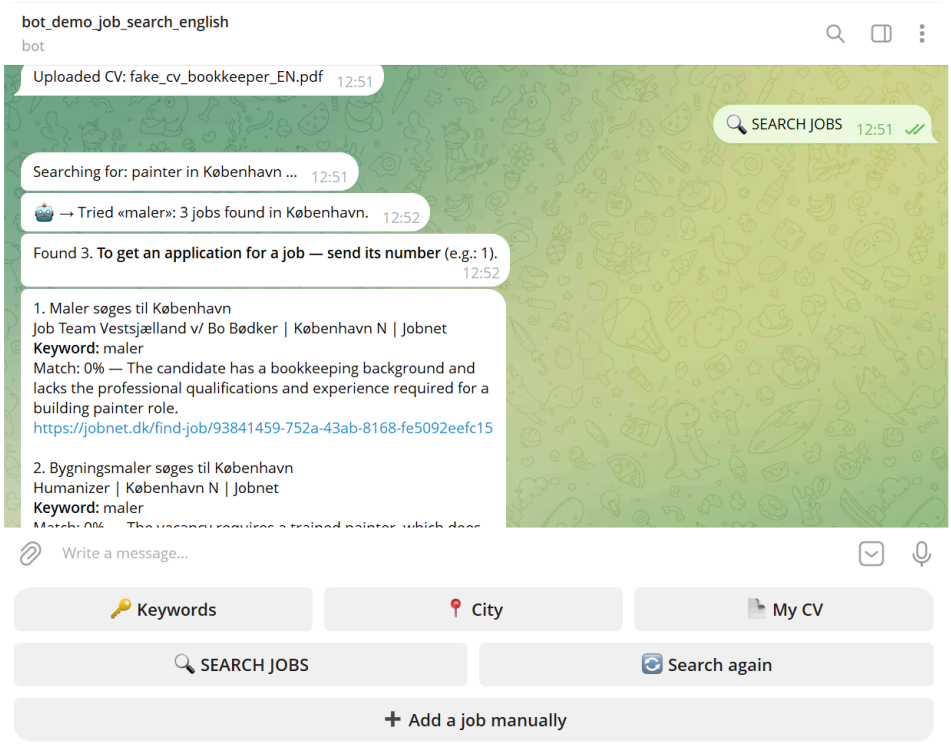
Search term saved, "copnhagen" understood as København, CV uploaded — the bot confirms each step straight away.

Honest match assessment in practice

The same CV (an experienced bookkeeper), tested against different positions — to show that the assessment really changes with the substance and doesn't just repeat a fixed number.



Positive match: bookkeeper CV against bookkeeper positions — 90% and 85%, each with a short explanation. «Keyword:» shows which search word found each job.



No match: the same bookkeeper CV against painter positions — an honest 0%, with the reason.

Agentic search: the AI thinks for itself

Not a fixed list of synonyms programmed in advance. When a search term finds fewer than 3 jobs in the chosen city, Google Gemini gets access to a real search tool (function calling) and decides for itself whether — and which — other word to try instead. Most Danish job postings are written in Danish, so an English search term is often translated into the Danish job title.

How it works

- Too few results — instead of just showing "nothing found", the AI is brought in automatically.
- The AI suggests an alternative itself — at most 2 attempts with a real, new search term, and it looks at the actual result before possibly trying again.
- Honest refusal of nonsense — if the search term makes no sense, the AI says so honestly instead of guessing a random word.

REAL EXAMPLES — ENGLISH SEARCH TERMS

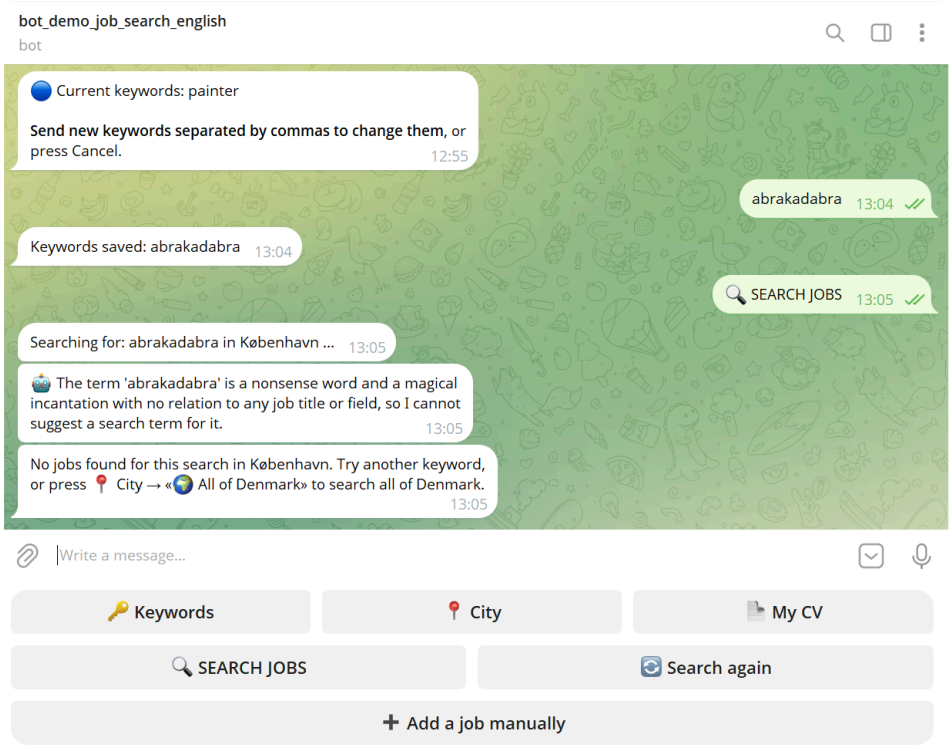
> bookkeeper → Tried «bogholder»: 3 jobs found in København.
> painter → Tried «maler»: 3 jobs found in København.

Both can be seen in the screenshots on the previous page.

REAL EXAMPLE — MEANINGLESS SEARCH TERM: "ABRAKADABRA"

> The term 'abrakadabra' is a nonsense word and a magical incantation with no relation to any job title or field, so I cannot suggest a search term for it.

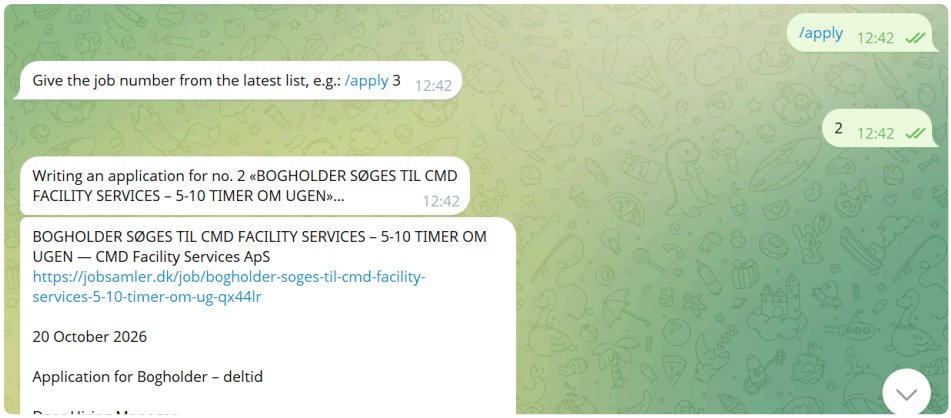
This feature was tested with real data during development, and a real weakness was found and fixed: at first, the AI guessed a plausible but wrong word ("pædagog" — teaching assistant) for "abrakadabra", instead of rejecting it. The solution was to give the AI explicit permission to refuse unreasonable input.



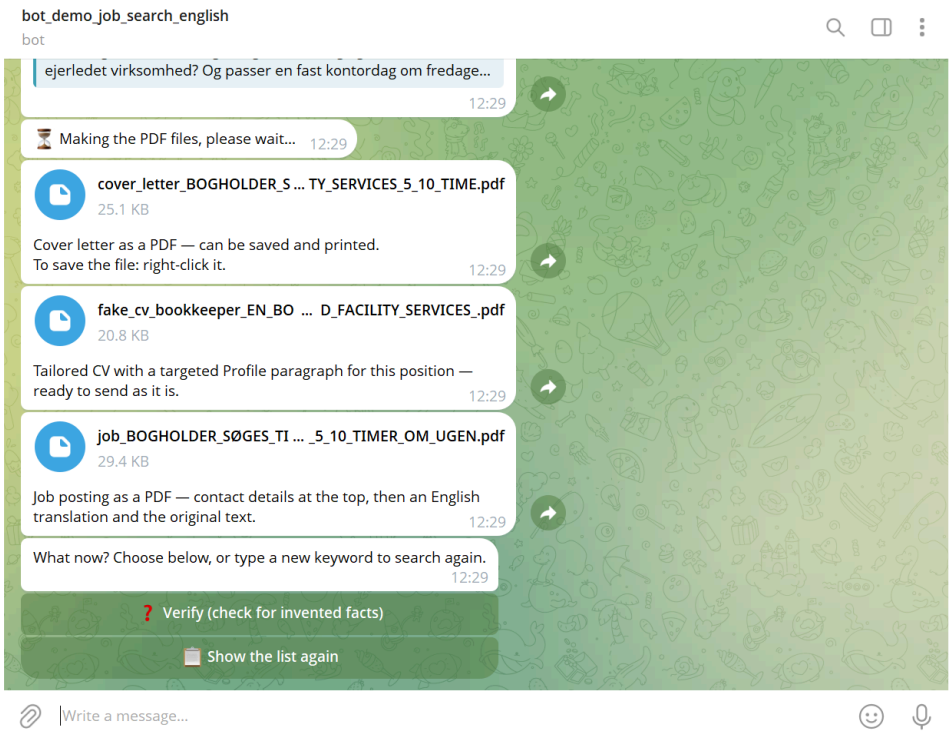
A new search term can be typed at any time — here the bot honestly refuses instead of searching for a random word.

From search result to finished application

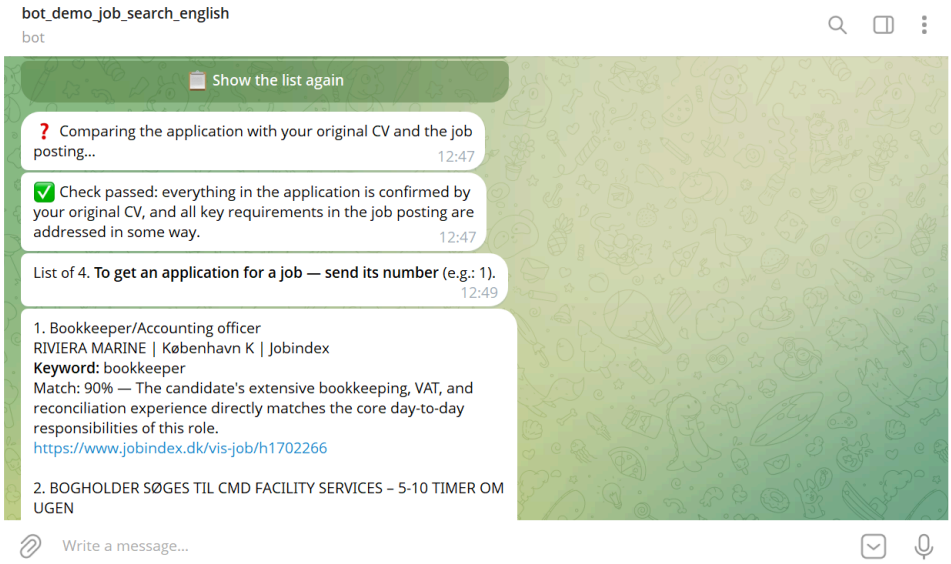
The whole flow in practice, with two different jobs from the same list — the bot writes a new, personal application every time, not a template with filled-in fields.



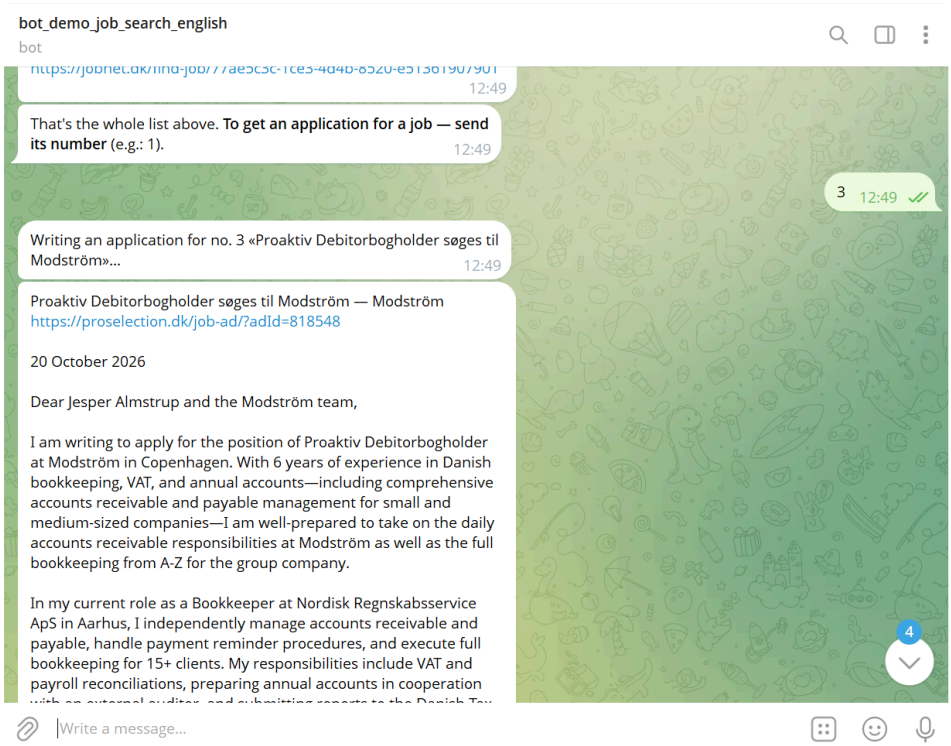
You send the job's number (here: 2) — the bot starts writing straight away, with today's date already filled in.



Finished: cover letter, tailored CV and the job posting, all as PDFs — plus the Verify button and «Show the list again».



«Show the list again» — the whole list is still there, no new search needed.



The same flow for job no. 3 — a different company, a different application. The contact person found in the job posting is addressed by name.

What it generates for each job

When you pick a specific job, the bot drafts 3 documents:

- **A cover letter in English** — based on real facts from the CV, with no invented experience. If something is missing, it is mentioned honestly but tactfully, as a willingness to learn it quickly.
- **A tailored CV** — your own CV with a new Profile paragraph written for this exact position.
- **The job posting as a PDF** — contact details at the top (name, phone, email), then an English translation and the original Danish text.

Check and fix the application: Verify

Afterwards, the application can be checked and corrected with two buttons:

- **Verify (check for invented facts)** — a new, independent AI review compares the application with the real CV and flags every claim that isn't in the CV. At the same time, it checks whether the application completely misses an important requirement from the job posting, either as experience or as an honestly mentioned gap.
- **Fix based on Verify** — if Verify has found something, the bot corrects the application in a targeted way, only in the flagged places, and recommends running Verify again on the corrected version.

An honestly mentioned gap ("no experience with X yet, but a fast learner") is not an error. Verify only flags claims with no support in the CV.

Fixing is optional. Verify gives advice — the decision is always yours. If a job simply doesn't match your CV (for example, a bookkeeper looking at a painter position), Verify will list many missing requirements. That is a normal and honest result, not something to "fix". You can keep the application exactly as it is, adjust it yourself, or skip the job.

The bot never sends anything by itself

The bot only drafts — it never sends an application on its own. The final step (review, adjust, send) is always the person's own.

Try it yourself

The bot is live on Telegram: **@demo_job_search_english_bot** — t.me/demo_job_search_english_bot
Portfolio page with an interactive demo (no Telegram needed to see the bot in action): halyna-projects.github.io/en/

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