From Fuzzy to Fluent

Semantic Code Search in Vim/Neovim

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I'm **Sirasagi62**

- **Sendai, Japan**
- **Tohoku Univ.**
- **TS/Go/Python/C++ ...**
- **About 10 years**

Finder


また
FuzzyFinderか！


Yet Another
Fuzzy Finder AGAIN!?

No, It's Fluent.

Motivation

Finding code is difficult

“Searching with different verb with same meaning”
“Can’t think of what words to search”

Motivation

Finding code is difficult

“Searching with different verb with same meaning”
“Can’t think of what words to search”

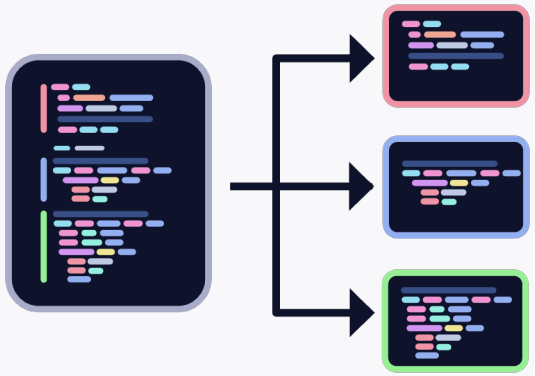
→ Cannot use synonym or sentences

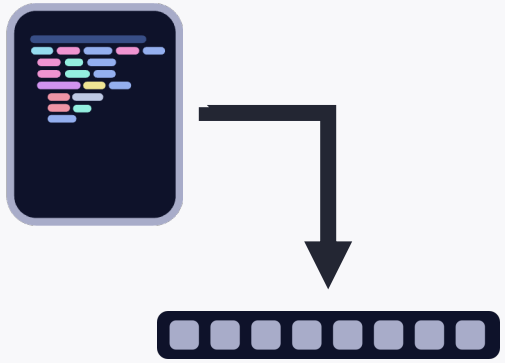
What is Fluent Finder and flf-vim

flf-vim

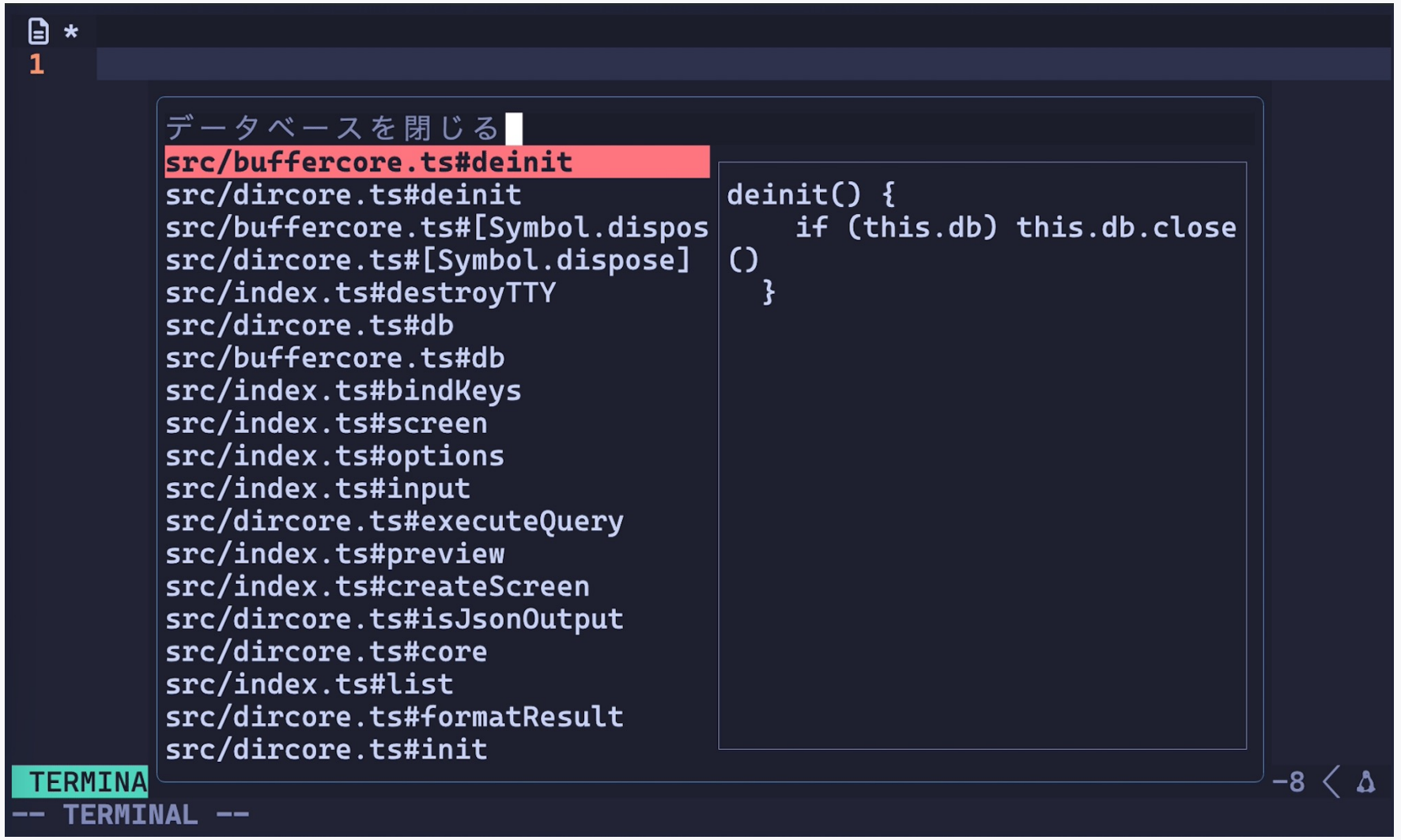
flf-vim finds code semantically

→ AI understands the meaning of the code





Example 1: FlfDir



flf-vim

Problem

flf-vim

Problem

":FlfDir" takes a very long time

Example: Analyze vim source code

→ It takes

flf-vim

Problem

":FlfDir" takes a very long time

Example: Analyze vim source code

→ It takes over 1 hour

flf-vim

Problem

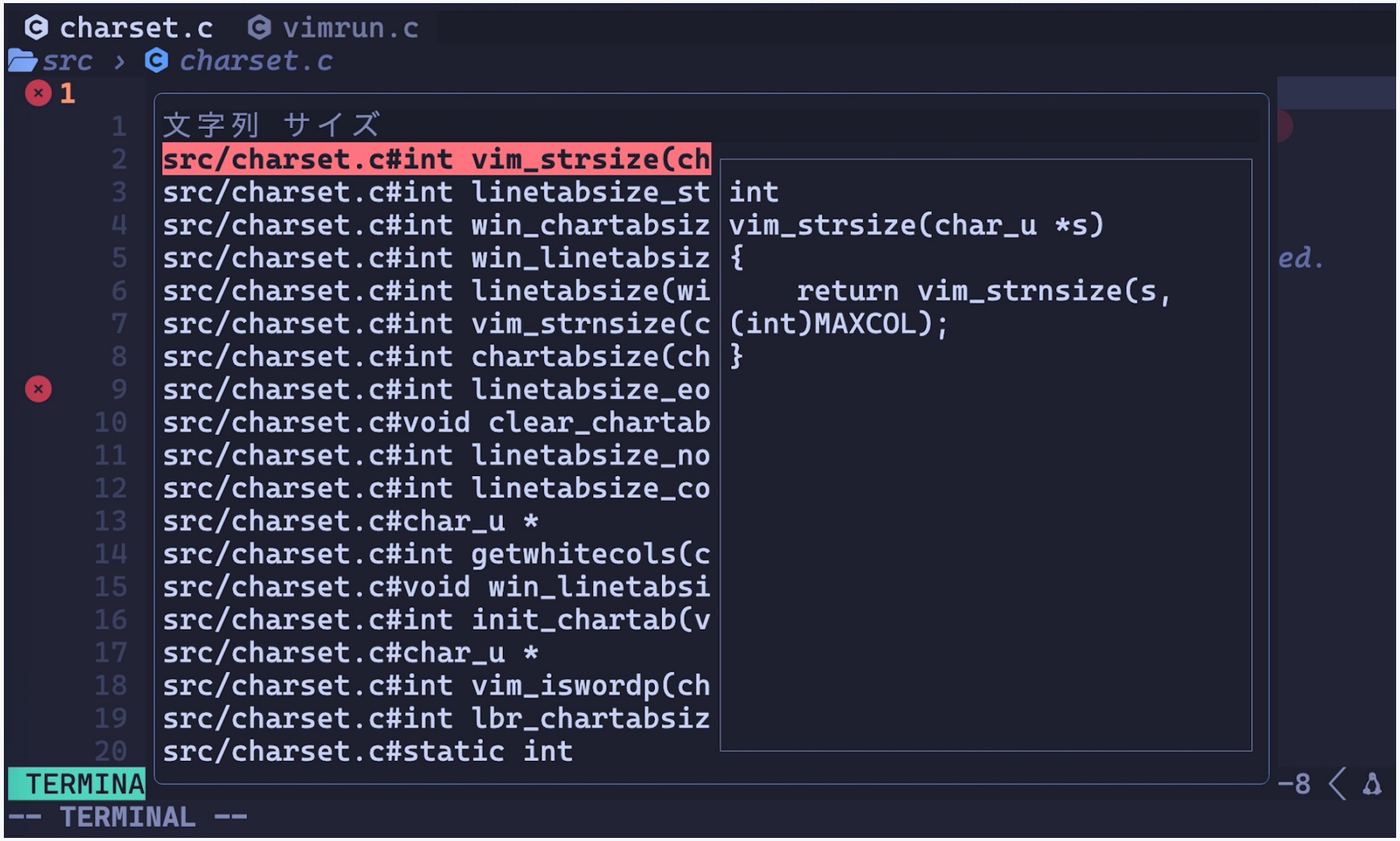
"

de

Not Fluent

flf-vim

Example 2: FlfBuf



flf-vim

Embedding Model

flf-vim

Use SLM(Small Language Model)

- Safe
- Cost-Effective
- Fast

Embedding Model

“ruri-v3-70m-code-v-0.1”

- Finetuned “ruri-v3”

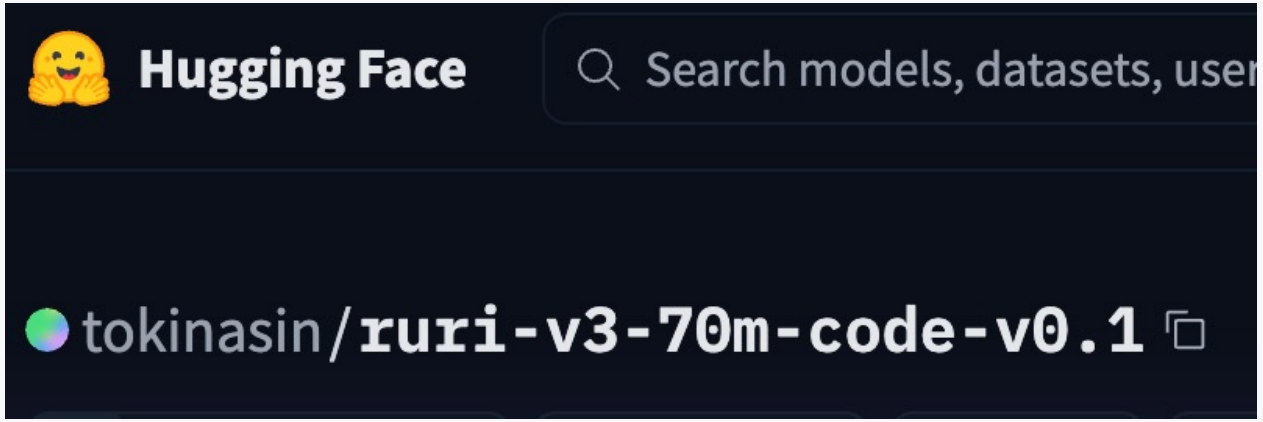
flf-vim

Embedding Model

flf-vim

“ruri-v3-70m-code-v-0.1”

- Finetuned “ruri-v3”



Conclusion

flf-vim

flf-vim allows searching with natural languages

More things to talk...

flf-vim

- Unclear behavior in Vim's `:buffer`
- A bug I found during development that crashes Bun.js in just 4 lines
- Hacks to support both Vim and Neovim

Thank you!