Edit live Jupyter notebook cells with Emacs

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Two software packages required

- **GhostText** extension for web browser
- **Atomic-Chrome** package for Emacs
GhostText Extension

chrome web store

By Federico Brigante
https://ghosttext.fregante.com/
https://github.com/fregante/GhostText
Click on the GhostText icon in the browser toolbar.
LaTeX in Emacs: https://github.com/MooersLab/BerlinEmacsAugust2022
emacs29 --init-directory /latex-emacs https://github.com/MooersLab/latex-emacs
Write in \LaTeX where it is not supported.
Editing Julia with Emacs

```
In [11]:
    1 using CairoMakie

In [14]:
    1 CairoMakie.activate!(type="svg")

In [ ]:
    1 f(x) = pdf(g, x)
    2 xs = 0:0.1:4
    3 ys = f(xs)
    4 lines(xs, ys)
    5 hist!(samples, normalize=true, bins=40, alpha=0.4)
    6 current_figure()
```
Supported Fields

• textarea elements, including cells in Jupyter Notebooks
• Content editable areas (e.g., Outlook Webmail, Gmail)
• CodeMirror editors (e.g., CodePen, JSFiddle, JS Bin)
• Ace editors (e.g., AWS, Khan Academy, Wikipedia)
GhostText Keyboard Shortcuts

Mac        cmd + shift + k
Linux      ctrl + shift + h
Windows    ctrl + shift + k

Yeah! Keybindings! Count me in! 😊
How GhostText works

• Open Emacs and enter **M-x atomic-chrome-server-start**
• Activate GhostText with key-binding or mouse click.
• Browser contacts running atomic-chrome server.
• **localhost:4001** is used to open a WebSocket connection.

```
{
    "ProtocolVersion": 1,
    "WebSocketPort": 16881
}
```

• To close connection: close buffer in Emacs or right click icon in browser
• Can activate multiple webpages. Each has a separate buffer.
Supported browsers and text editors

Installation

1. Install your browser extension:

![Chrome](https://github.com/fregante/GhostText)

Exist compatible with

![Firefox](https://github.com/fregante/GhostText)

![Safari](https://github.com/fregante/GhostText)

2. Install your editor extension:

![Sublime Text](https://github.com/fregante/GhostText)

![Atom](https://github.com/fregante/GhostText)

Source: https://github.com/fregante/GhostText

HTML editing with Sublime Text (Moodle):
https://www.youtube.com/watch?v=JWW3o104npY&t=190s

Designed for Sublime Text. Easy to install for Atom.
Atomic Chrome for Emacs

This is the Emacs version of Atomic Chrome which is an extension for Google Chrome browser that allows you to edit text areas of the browser in Emacs. It's similar to Edit with Emacs, but has some advantages as below with the help of websocket.

- The input on Emacs is reflected to the browser instantly and continuously.
- You can use both the browser and Emacs at the same time. They are updated to the same content bi-directionally.
(use-package atomic-chrome)
(atomic-chrome-start-server)
(setq atomic-chrome-default-major-mode 'python-mode)
(setq atomic-chrome-extension-type-list '(ghost-text))
(setq atomic-chrome-server-ghost-text-port 4001)
(setq atomic-chrome-url-major-mode-alist
  '(("github\.com" . gfm-mode)
     ("overleaf\.com" . latex-mode)
     ("750words\.com" . latex-mode))))
GhostText Testing Site

Is GhostText correctly configured? Try activating it on this page. It can pick up multiple fields at once, just activate it multiple times.

If it doesn’t work, refer to Troubleshooting.

<textarea>
This is a textarea this
</textarea>

contenteditable

This is a contenteditable div

Source: https://github.com/fregante/GhostText
Cautions about GhostText

- **GhostText does not work in Pluto.** Run in Jupyter via IJulia.
- **Does not work in Rstudio.** Run in Jupyter via Ipykernel.
- **Do not save the text from the editor.** Save work in the browser.
- **Emacs server may usurp port 4001.** Assign to a different port.
- **No conflict with org-roam-ui 😊**
Conclusions about GhostText

- Edit prose in your favorite major-mode.
- Edit live Jupyter notebook cells.
- Snippets save time.
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