

blaisewang / img2latex-mathpix

An image to LaTeX tool by MathpixOCR API and JavaFX

#javafx #latex #ocr

🔖 130 commits

🌿 1 branch

📦 0 packages

📦 18 releases

👤 2 contributors

📄 Apache-2.0

Branch: master ▾

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blaisewang build: upgrade jdk (#58) ...

✓ Latest commit 392157e 4 days ago

📁 .github	Remove gradle.yml	23 days ago
📁 demo	Add a "Waiting..." label (#32)	last month
📁 gradle/wrapper	build: upgrade jdk (#58)	4 days ago
📁 macOS	Add app icon for macOS version (#34)	last month
📁 script	build: upgrade jdk (#58)	4 days ago
📁 src/main	feat: remove config with preferences api (#57)	8 days ago
📄 .all-contributorsrc	docs: add YuiTH as a contributor (#51)	21 days ago
📄 .gitignore	feat: remove config with preferences api (#57)	8 days ago
📄 .travis.yml	build: upgrade jdk (#58)	4 days ago
📄 CODE_OF_CONDUCT.md	Create CODE_OF_CONDUCT.md	last month
📄 CONTRIBUTING.md	Create CONTRIBUTING.md	18 days ago
📄 LICENSE	Initial commit	4 months ago
📄 README-ZH.md	Updated the future development plan	8 days ago
📄 README.md	Updated the future development plan	8 days ago
📄 build.gradle	build: upgrade jdk (#58)	4 days ago
📄 gradlew	0.2.3 dev (#25)	last month
📄 gradlew.bat	0.2.3 dev (#25)	last month
📄 settings.gradle	Update generated jar file name for consistency	3 months ago

📖 README.md

Image2LaTeX

English | 中文

🏆 code quality A

🚀 build passing

📦 release v0.4.3

📦 downloads 4.3k

📄 PRs

👋 welcome

📄 license Apache-2.0

Snip is an amazing app built by Mathpix to help you extract LaTeX (also text) from documents. It gives you the first 50 snips for free every single month. With the help of [MathpixOCR](#) and this supplementary app, you can now make up to 1000 OCR requests per month for free.

[Image2LaTeX](#) is a personal side project that keeps only core functions of the Snip such as convert images to certain LaTeX equation formats and OCR. For other advanced functions and unlimited snips, subscribe to the Snip for \$4.99 per month.

Features

See the [features](#) section on MathpixOCR website.

New Features

- Self-contained executable application for macOS.

Requirements

- Your API keys in your [MathpixOCR dashboard](#) (different from the Mathpix account used in the Snip app)
- JDK 11 or higher version ([OpenJDK](#) is highly recommended) if you plan to use `Image2LaTeX-x.x.x.jar`

Run

Enter your API keys (without single quotes) at the first launch of this app.

To change your API keys, macOS and Windows users will find a menu item called `API Credentials` by clicking this app's menu bar icon.

Linux users can open the `API Credentials` dialogue by right-clicking anywhere inside the application.

Note, this app will not send your API keys to others except for MathpixOCR API server (see [OCRRequestHelper.java](#) to learn how your API keys are used).

Usage

macOS

Run `Image2LaTeX.app` .

Windows

Run `Image2LaTeX.vbs` at `Image2LaTeX-windows/` .

Linux

Run `Image2LaTeX` at `Image2LaTeX-linux/bin/` or with:

```
./Image2LaTeX
```

JAR

With a JAR launcher installed, run `Image2LaTeX-x.x.x.jar` or with:

```
java -jar Image2LaTeX-x.x.x.jar
```

Use your operating system's default methods (or other tools) to take a screenshot of equations or text (Shift (⇧)-Control (⌘)-Command (⌘)-4 on macOS by default).

Then, press the `Space` key to preview the screenshot. Or, press the `Return` or `Enter` key to send the OCR request.

See [demo](#) section below.

Demo

sentences meanings will be far. A qualitative evaluation supports this claim, showing that our model is aware of word order and is fairly invariant to the active and passive voice.

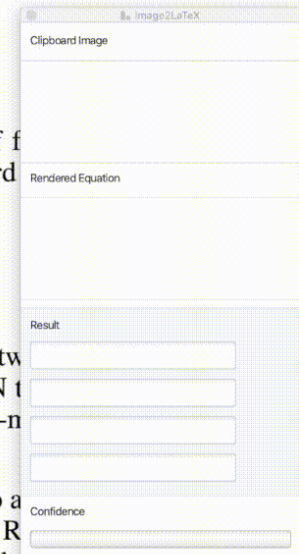
2 The model

The Recurrent Neural Network (RNN) [31, 28] is a natural generalization of feedforward networks to sequences. Given a sequence of inputs (x_1, \dots, x_T) , a standard sequence of outputs (y_1, \dots, y_T) by iterating the following equation:

$$\begin{aligned} h_t &= \text{sigm}(W^{hx}x_t + W^{hh}h_{t-1}) \\ y_t &= W^{yh}h_t \end{aligned}$$

The RNN can easily map sequences to sequences whenever the alignment between inputs and outputs is known ahead of time. However, it is not clear how to apply an RNN to sequences where the input and the output sequences have different lengths with complicated and non-trivial relationships.

A simple strategy for general sequence learning is to map the input sequence to a vector using one RNN, and then to map the vector to the target sequence with another RNN. This has also been taken by Cho et al. [5]). While it could work in principle since the RNN is provided with all the relevant information, it would be difficult to train the RNNs due to the resulting long term dependencies [14, 4] (figure 1) [16, 15]. However, the Long Short-Term Memory (LSTM) [16]



FAQ

Native self-contained executable application for Windows and Linux

Not yet. But, with the GA release of Java 14 in 2020, [jpackage](#) should be available for packaging self-contained JavaFX application. At that time, I will drop the release of `.jar` and `.zip` files and no one (except me) needs to install JDK anymore.

Difference between released `*.jar` and `*.zip` files

You don't need to have JDK 11 installed for running `*.zip` versions.

Considering the people using similar apps, I assumed that a large percentage of users should have JDK installed. Therefore, a smaller size Fat JAR `Image2LaTeX-x.x.x.jar` has also released.

Getting updates on new releases ASAP

See this [article](#) about watching and unwatching releases for a repository by GitHub.

Development plans

- Add multiple result formatting option.

Issues

Please first refer to the official [API Docs](#) about error types and the [reported issue](#) if you encountered an error.

Encountered an unreported issue 🤔



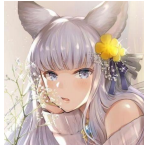
Welcome to open an [issue](#) with the [bug](#) or [question](#) label, but the time to fix non-vital bugs may not be guaranteed.

Contributions

Contributions are highly welcomed. Suggestions can be made through opening an [issue](#) with [enhancement](#) label. [Pull Requests](#) including bug fixes, new features, code style guidance, etc., will be reviewed as soon as possible.

Contributors ✨

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 <p>Hao Xu 😬</p>	 <p>龚焱 😬✅</p>	 <p>BOB 🐛⚠️</p>	 <p>YuiTH 🐛</p>
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