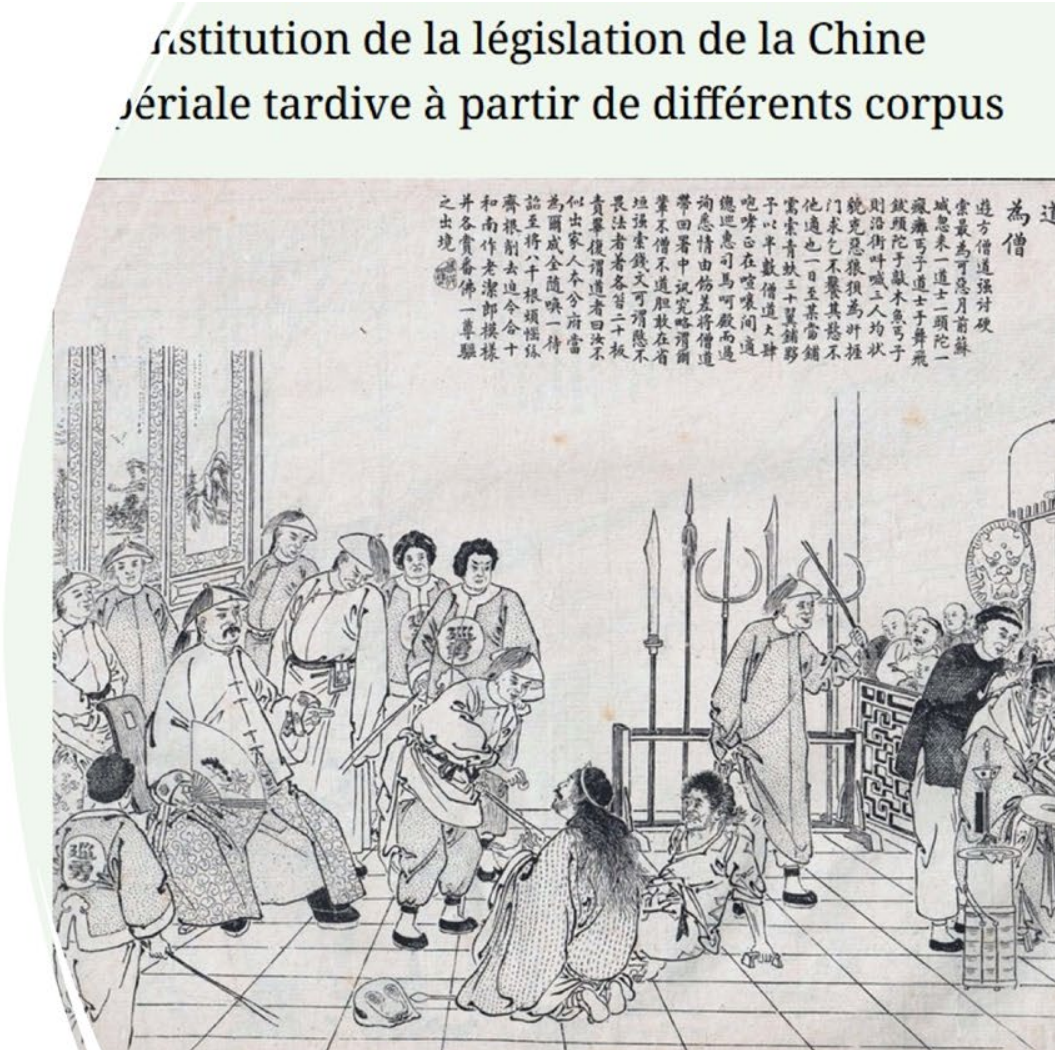
Le projet CollEx COREL (Code relationnel) : numérisation, OCR et bases de données au service de l'analyse de sources juridiques chinoises

Colin BRISSON (EPHE/CRCAO**)**
Frédéric CONSTANT (Université Côte d'Azur)

Objectifs du projet

- Création d'un site Internet de dépôt de d'affichage et sources juridiques chinoises

- Reconstitution de l'ensemble de la legislation chinoise à partir de plusieurs corpus



- legal handbooks :
  for magistrate, for legal advisers, for pettifoggers.

Resources on other Asian legal traditions

- Japan
- Korea
- Mongolia
- Vietnam

Maps

- Exile maps
- Lingchi sentences
- Regional special law

Ming and Qing codes with translations

- Methodology
- Glossary

Ming Code

- overview
- Da Ming lü jijie fuli 1610 /all

Qing Code

- overview
- Da Qing lü jijie fuli 1646 /all
- Xingbu xianxing zeli 1680 /all
- Da Qing lüli 1740 /all
- Da Qing lüli 1871 /all
- Huidian shili-Xingbu part 1899 /all
- Da Qing lüli-Duli cunyi 1905 /all

Virtual Synoptical Code

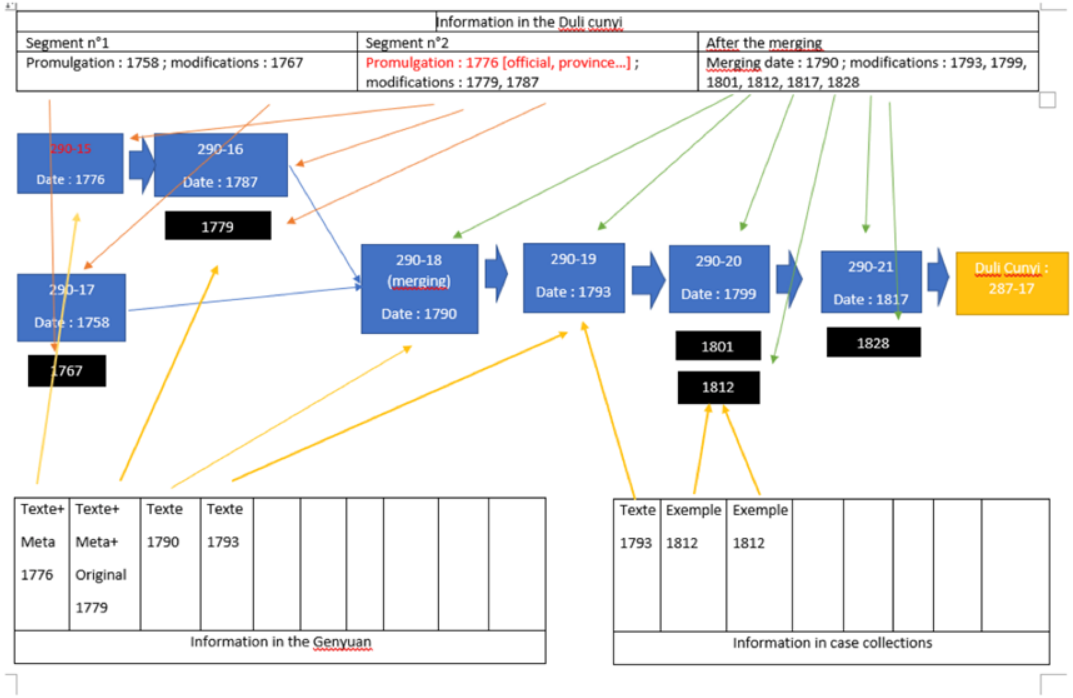
ID	Title	Year	Author	Topic
389	(Chongke) Xiyuan lu 重刻洗冤錄 [A New Carving of The Washing Away of Wrongs]		Song Ci 宋慈	4.1 Magistrates handbooks: General
335	(Jingxin haimu)Huaji miaopan(驚心駭目)滑稽妙判		Fu Waishi 芙外史(ed.)	4.1 Magistrates handbooks: General
334	(Jingxin haimu)Laoli pipan daquan (驚心駭目)老吏批判大全		Fan Zengxiang 樊增祥 etc.	4.2 Magistrates handbooks: Handbooks for legal experts
394	(Lüli guan jiaozheng) Xiyuan lu 律例館校正洗冤錄 [Washing Away the Wrongs, Edited by the Bureau of the Code]		Anonymous	4.2 Magistrates handbooks: Handbooks for legal experts
395	(Lüli guan jiaozheng) Xiyuan lu 律例館校正洗冤錄 [Washing Away the Wrongs, Edited by the Bureau of the Code]		Anonymous	4.2 Magistrates handbooks: Handbooks for legal experts
491	(Qinban) Zhouxian shiyi 欽頒州縣事宜 [Advice for Magistrates Published by Imperial Order]		Tian Wenjing 田文鏡	3.2 Regulations collections: local regulations
523	(Wen Jinghan xiansheng) Zili yan (文靜涵先生) 自歷言 [Words from One's Own Progress]		Wenhai 文海 (Jinghan 靜涵)	4.1 Magistrates handbooks: General
470	(Wusuo Liu xiansheng) Juguan shuijing 勿所劉先生居官水鏡 [Mr. Liu Wusuo's Lucid Mirror of The Office Holder]		Liu Shijun 劉時俊	4.1 Magistrates handbooks: General
361	(Xinjuan) Fajia tou danhan 新鐫法家透膽寒 [Lawyer's Piercing Gallbladder Awe, A new edition]		Buxiang zi 補相子	4.3 Magistrates handbooks: Handbooks for Pettifoggers (songshi 訟師)
463	(Xue Wenqing gong) Congzheng mingyan 薛文清公從政名言 [Xue Xuan's Famous Sayings on Government Service]		Xue Xuan 薛瑄	4.1 Magistrates handbooks: General
464	(Yuzhi) Guanzhen 御製官箴 [Imperially Composed Admonitions to Officials]		emperor Xuanzong of the Ming (Zhu Zhanji 朱瞻基)	4.1 Magistrates handbooks: General
156	(Zengding) Xingbu shuotie 增訂刑部說帖 [Memoranda from the Ministry of Justice]		comp. Guoying 國英, from Jilin, et al.	2.1 Judicial cases: general casebooks
222	A chinese-english dictionary	1912	Herbert A. Giles	
86	An Wu qinshen xigao 按吳親審檄稿 [Draft Opinions from Cases Personally Tried as Regional Inspector of the Wu Region]	0	Qi Biaojia 祁彪佳	2.2 Judicial cases: Local casebooks

Présentation des sources

- Deux sources principales :
  - Les lois principals (*lü* 律)
  - Les lois secondaires (*tiaoli* 條例)

- Code des Qing *Da Qing lüli* 大清律例 (1740)
- Commentaire du code
  - Doutes persistants sur le code *Du li cunyi* 讀例存疑 (1905)
- Deux compilations
  - Les origines du code des Qing *Da Qing lüli genyuan* 大清律例根源 (1871)
  - Les institutions réunies des Grands Qing *Da Qing huidian* 大清會典 (1899)

Généalogie d'un article



Freizo/Data Futures

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p. 4: num: 282-9-7 number: 280-5, date 1725, (related huidian 282-9-7),
p. 5: num: number: 280-6,
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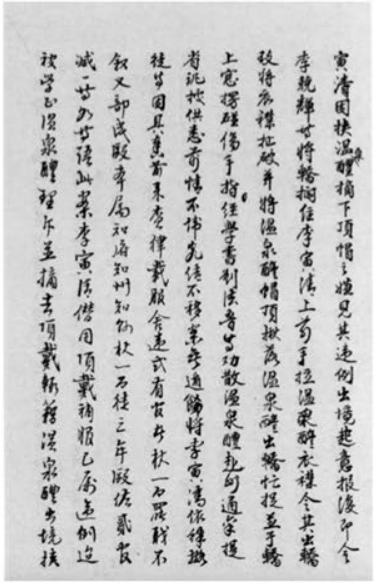
Enrichir les relations. Les codes et les jugements.

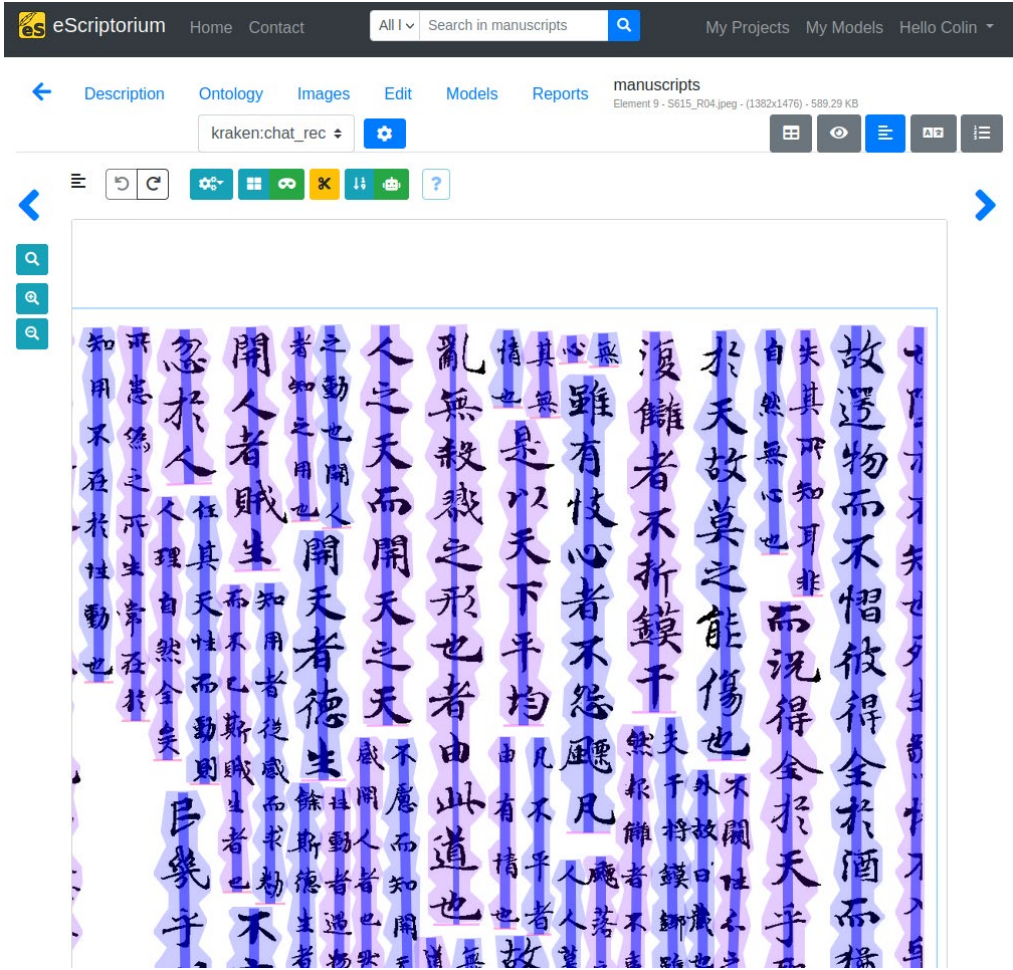
Relations bidirectionnelles

- Les lois additionnelles peuvent avoir leur origine dans des jugements
- Les jugements appliquent des lois



Transcription automatique

1.1 Vérité de terrain pour la segmentation



E

escriptorium

Project ID: 26940117

2,483 Commits **28** Branches **134** Tags **891.4 MiB** Project Storage

A project providing digital recognition of handwritten documents using machine learning techniques.

https://gitlab.com/scripta/escriptorium

1.2 Vérité de terrain pour la reconnaissance

https://github.com/kanripo

1.2 Vérité de terrain pour la reconnaissance

3 millions de lignes alignées

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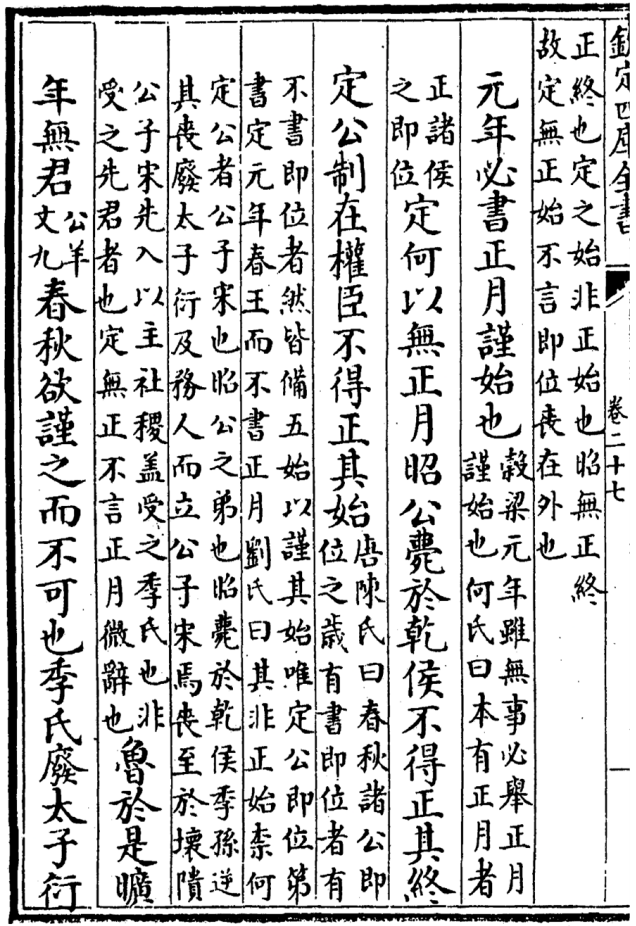
1.2 Vérité de terrain pour la reconnaissance

3 millions de lines alignées


欽定四庫全書 卷二十七

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1.2 Vérité de terrain pour la reconnaissance

3 millions de lignes alignées


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則廣濶坦平委蛇坡陀巉岐雀鬼之狀也支者勢
之分也又外則路之所通内則脉之所貫也脉者
真陽生意流行之迹也穴者地氣山勢来龍支脉
真陽生意之妙畢聚于此凝結不滯活動不流之
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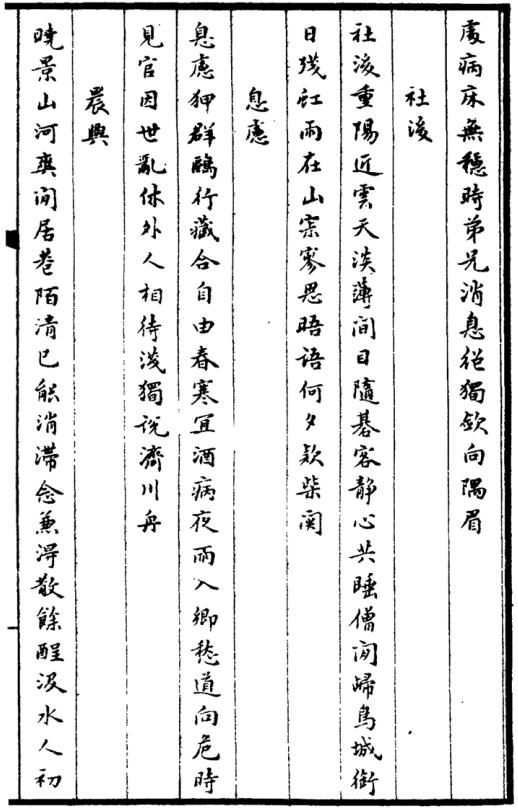
筋曰骨曰肉不曰穴葵穴非竅眼曰土曰石曰泉

1.2 Vérité de terrain pour la reconnaissance

3 millions de lignes alignées



1.2 Vérité de terrain pour la reconnaissance

- 內 (U+5185) → 內 (U+5167)

https://github.com/kanripo

1.2 Vérité de terrain pour la reconnaissance

- 内 (U+5185) → 內 (U+5167)
- 黃 (U+9EC4) → 黃 (U+9EC3)

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1.2 Vérité de terrain pour la reconnaissance

- 內 (U+5185) → 內 (U+5167)
- 黃 (U+9EC4) → 黃 (U+9EC3)
- 德 (U+5FB7) → 德 (U+5FB3)

https://github.com/kanripo

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- 內 (U+5185) → 內 (U+5167)
- 黃 (U+9EC4) → 黃 (U+9EC3)
- 德 (U+5FB7) → 德 (U+5FB3)

…

Plus de 4 000 glyphes normalisés

https://github.com/kanripo

1.2 Vérité de terrain pour la reconnaissance

Chinese Historical documents Automatic Transcription (CHAT) models

https://github.com/colibrisson/CHAT_models

1.2 Vérité de terrain pour la reconnaissance

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Evaluating ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 100% 9993
=== report  ===

1699210 Characters
14442   Errors
99.15%  Accuracy

207     Insertions
189     Deletions
14046   Substitutions

Count   Missed  %Right
1697864 13600   99.20%  Han
433     121     72.06%  Common
912     531     41.78%  Unknown
1       1       0.00%   Ethiopic

Errors  Correct-Generated
520     { 已 } - { 巳 }
298     { 巳 } - { 已 }
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115     { 己 } - { 已 }
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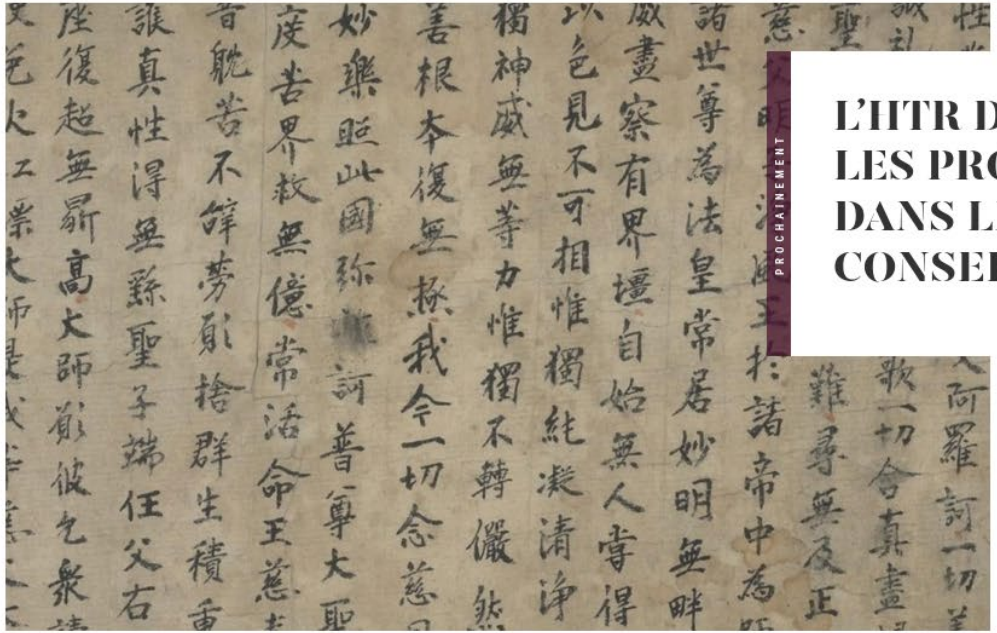
Chinese Historical documents Automatic Transcription (CHAT) models

https://github.com/colibrisson/CHAT_models

1.2 Vérité de terrain pour la reconnaissance



Pelliot chinois 3847 - - BnF, département des Manuscrits

PROCHAINEMENT

L'HTR DES LANGUES PEU DOTÉES DANS LES PROGRAMMES DE RECHERCHE ET DANS LES ÉTABLISSEMENTS DE CONSERVATION FRANÇAIS

COLLOQUES

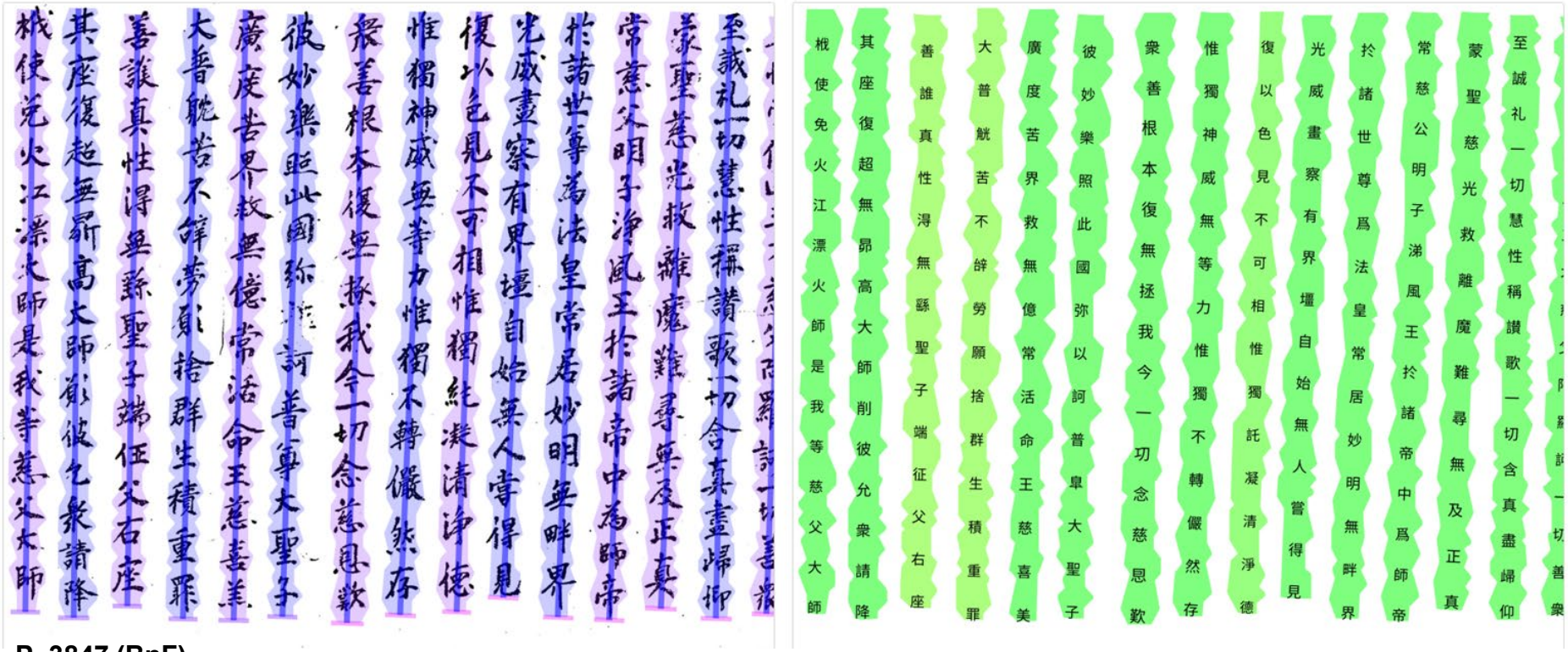
14 fév. 2024

9 h - 17 h

Richelieu

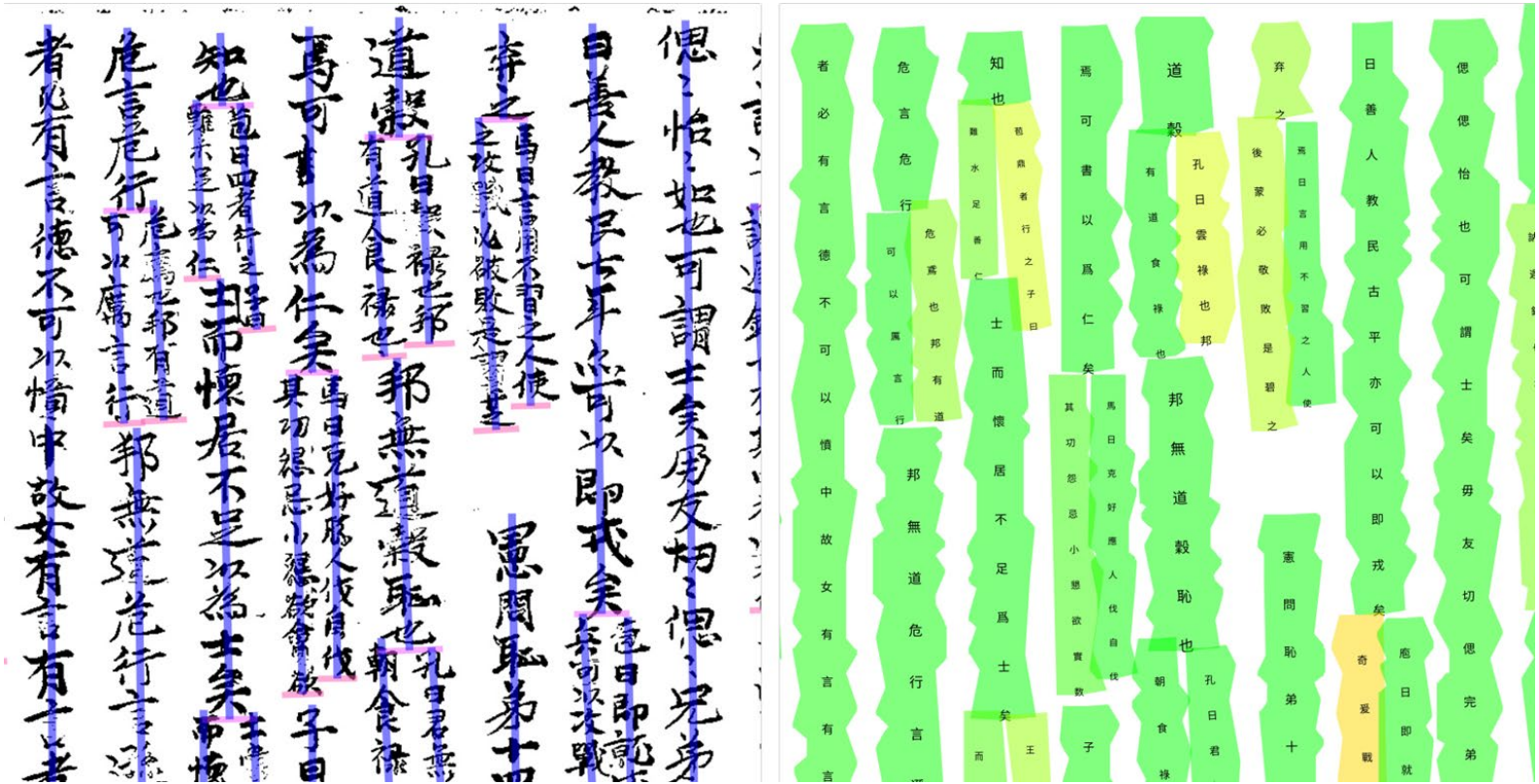
Salle des conférences

1.2 Vérité de terrain pour la reconnaissance

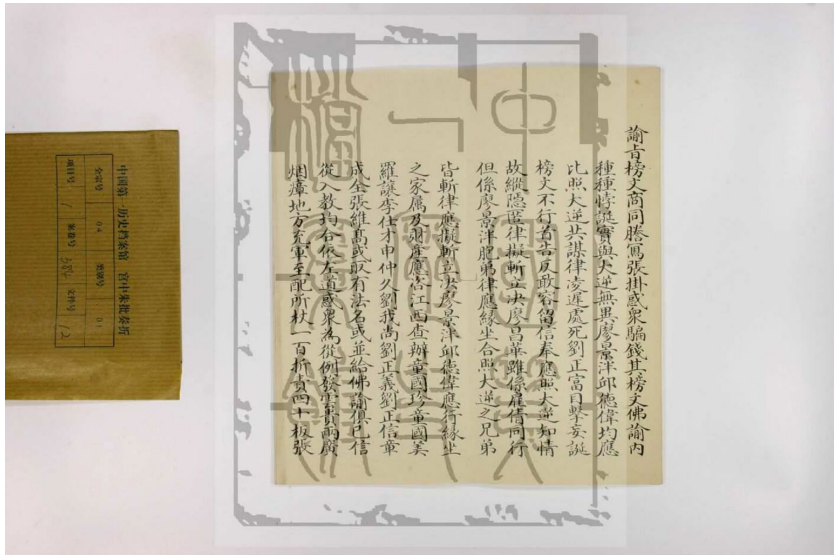


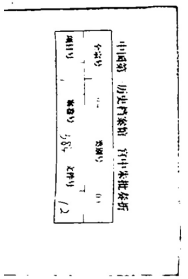
P. 3847 (BnF)

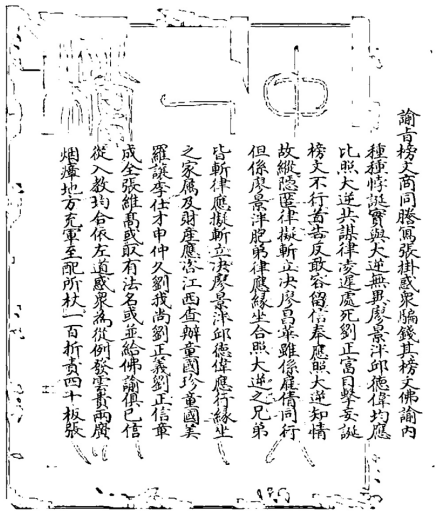
1.2 Vérité de terrain pour la reconnaissance



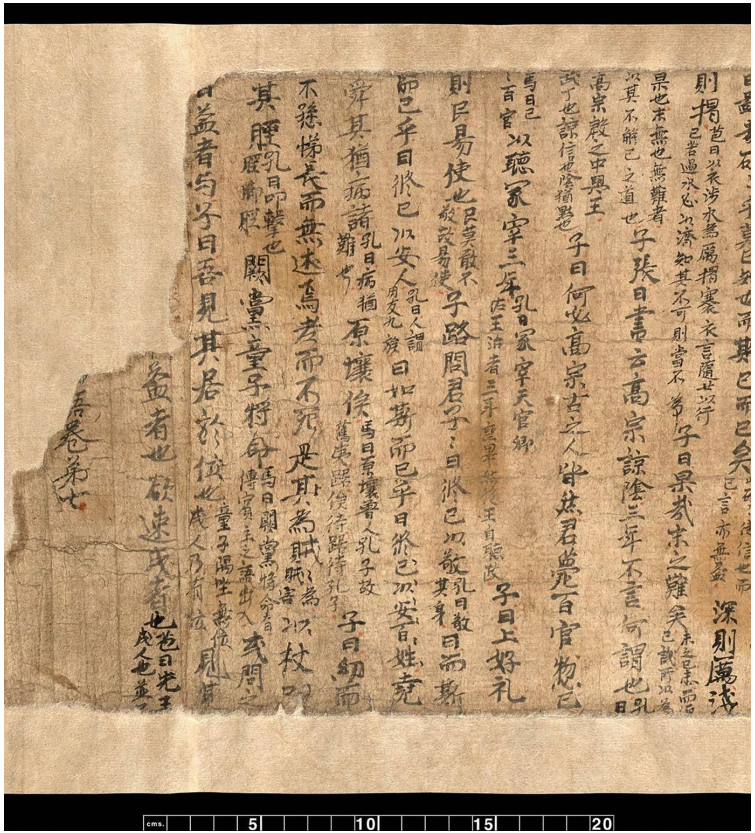
1.3 Binarisation

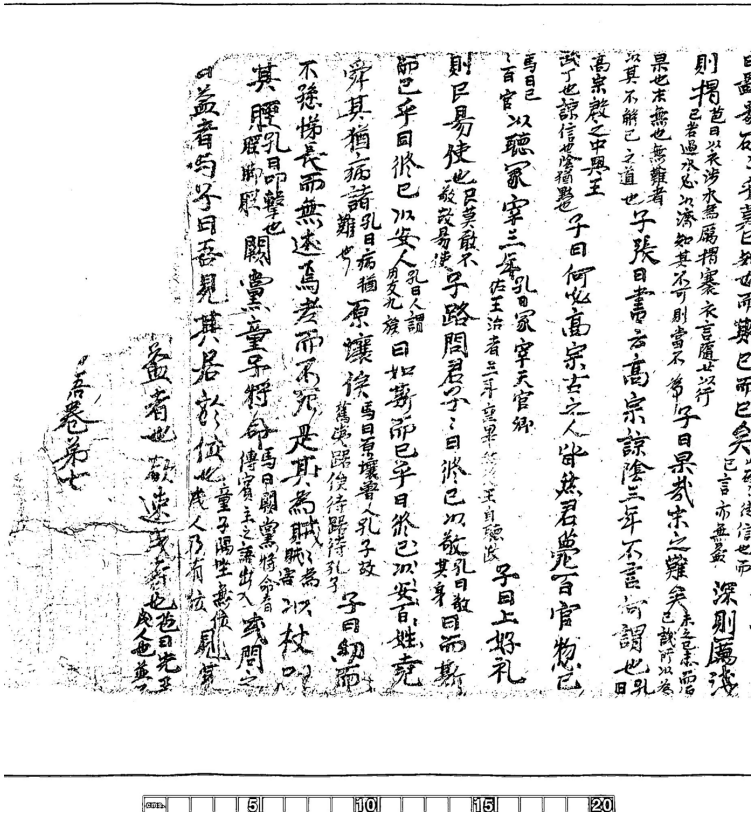






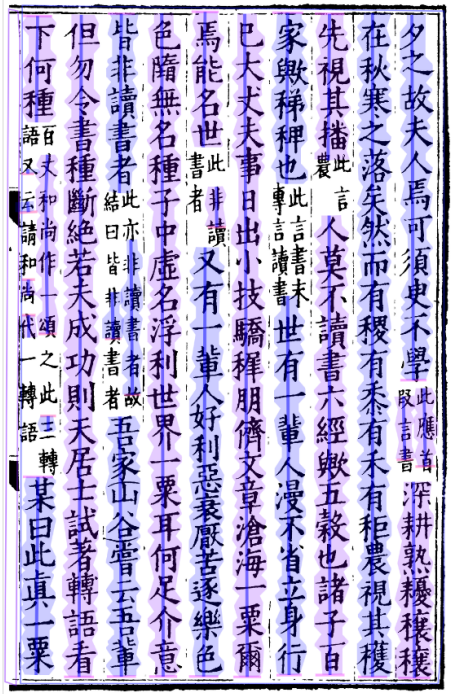
1.3 Binarisation

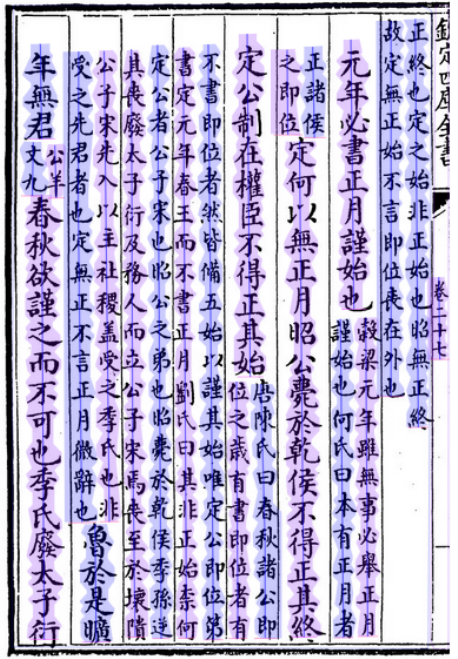




1.4 Limitations

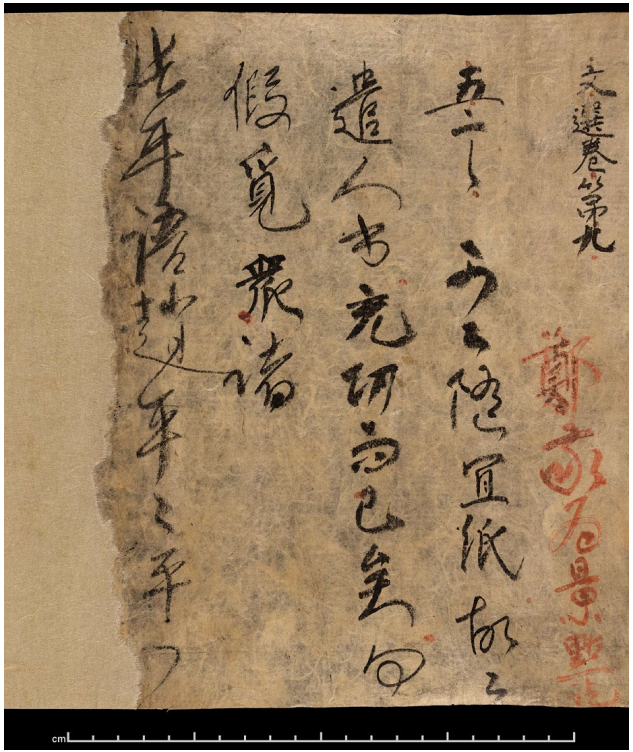
- segmentation





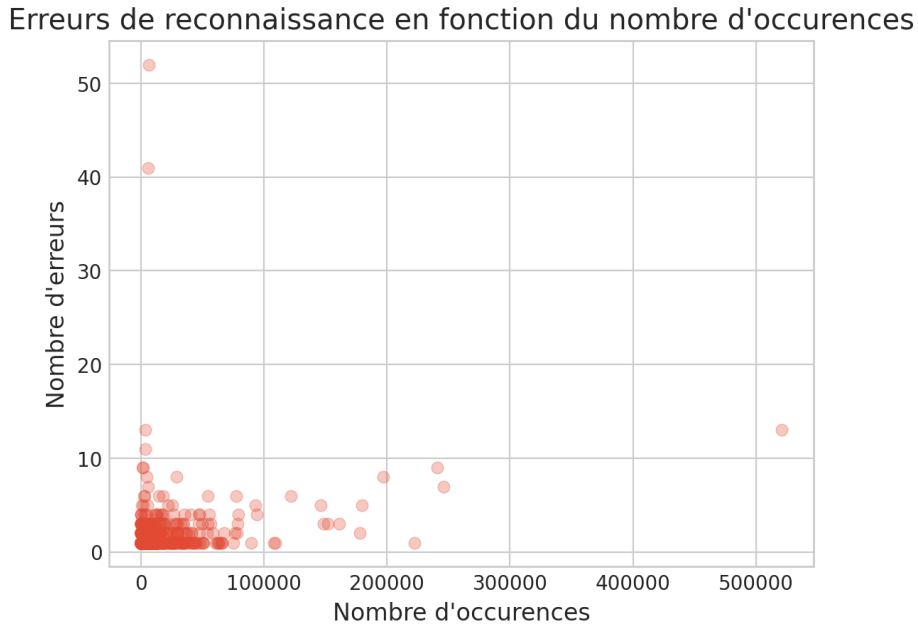
1.4 Limitations

- segmentation
- reconnaissance des styles fortement cursifs



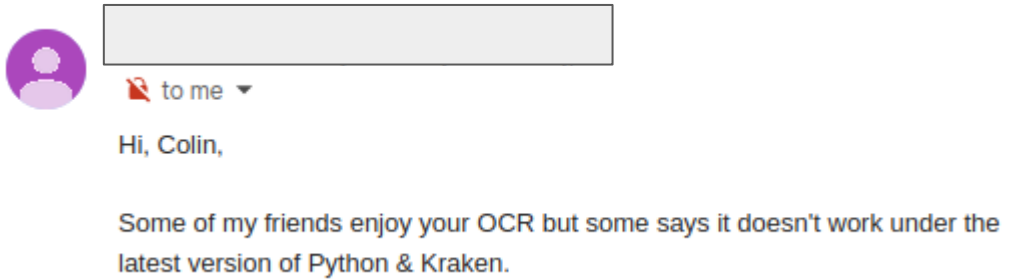
1.4 Limitations

- segmentation
- reconnaissance des styles fortement cursifs
- reconnaissance des caractères rares



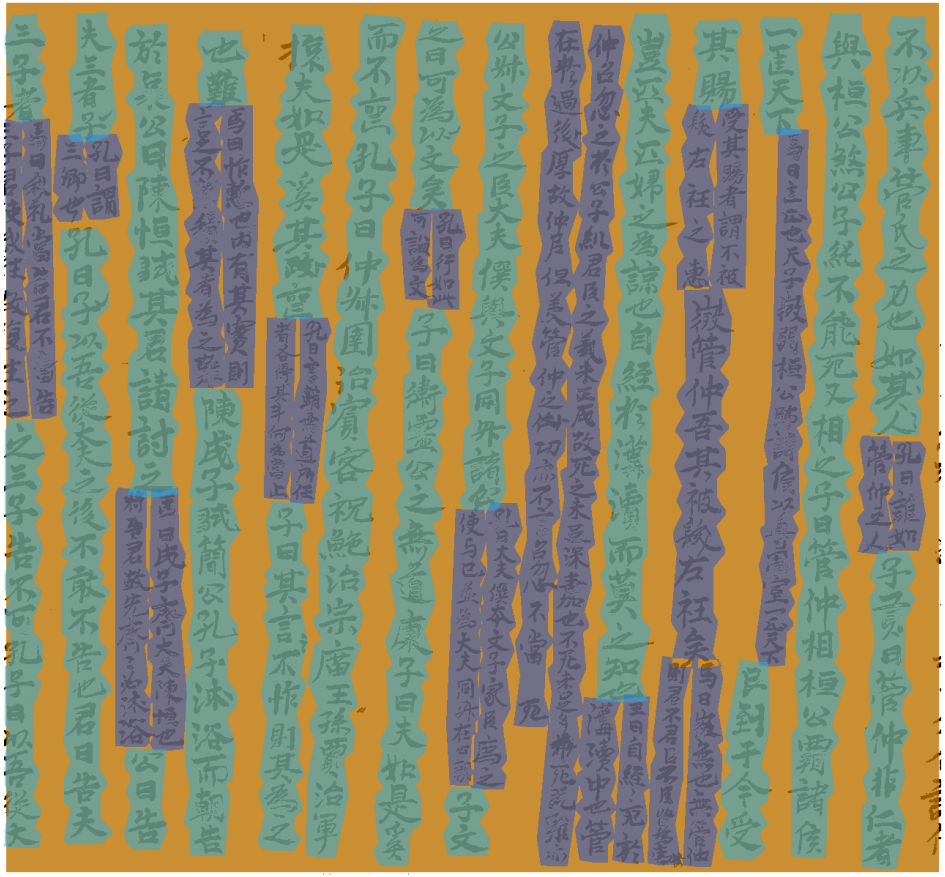
1.4 Limitations

- segmentation
- reconnaissance des styles fortement cursifs
- reconnaissance des caractères rares
- diffusion



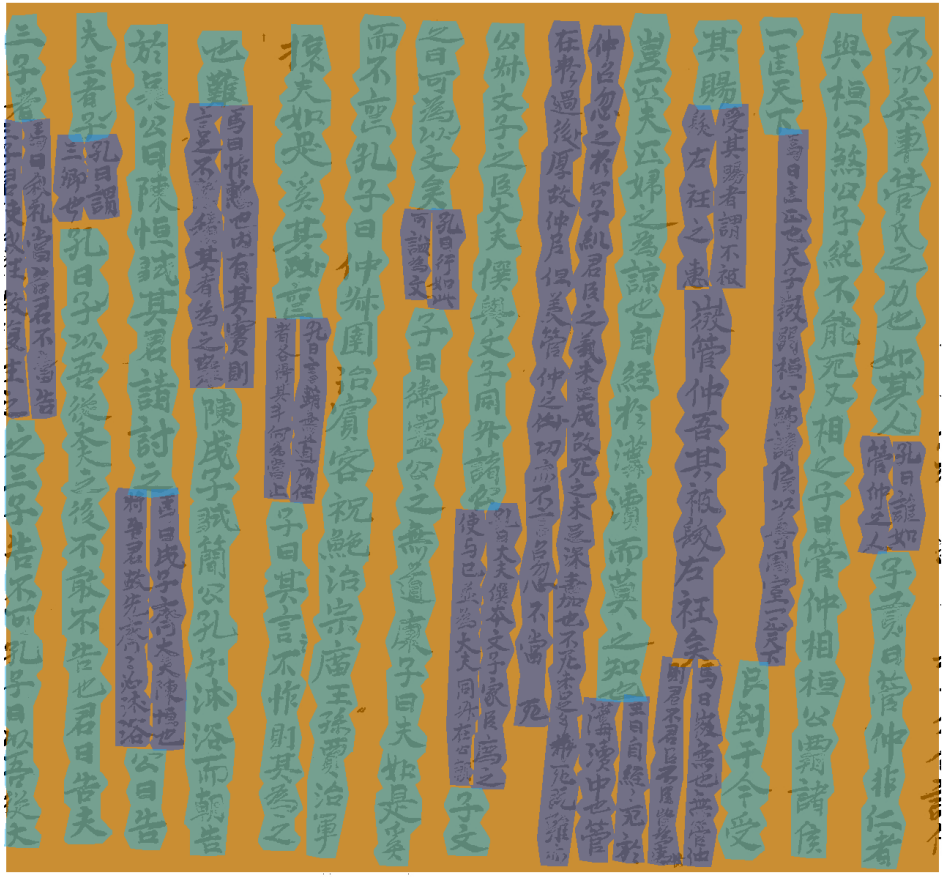
2. Coming soon

- amélioration de la segmentation



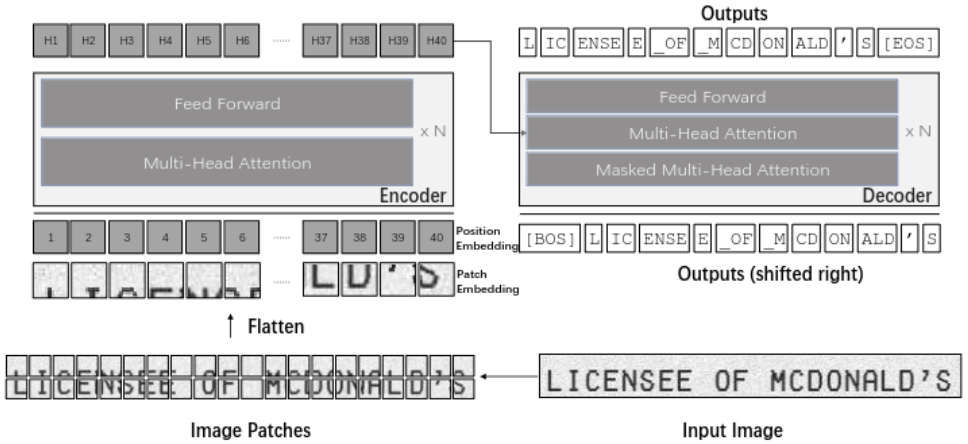
2. Coming soon

- amélioration de la segmentation
- alignement massif de nouvelles données



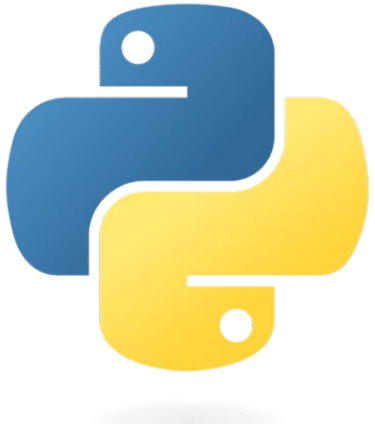
2. Coming soon

- amélioration de la segmentation
- alignement massif de nouvelles données
- architecture Tr-OCR



2. Coming soon

- amélioration de la segmentation
- alignement massif de nouvelles données
- architecture Tr-OCR
- package



Merci !