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-- Post-doc position - L3i - La Rochelle France

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Title : Recognition of text with variable styles in comics books

The L3i laboratory has one open post-doc position in computer science, in the specific field of document image analysis and pattern recognition

Duration: 12 months

Position available from: Mai 1st, 2019

Salary: approximately 2100 € / month (net)

Place: L3i lab, University of La Rochelle, France

Specialty: Computer Science/ Image Processing/ Document Analysis/ Pattern Recognition

Contact: Jean-Christophe BURIE (jcburie [at] univ-lr.fr)

Position Description

The L3i is a research lab of the University of La Rochelle. La Rochelle is a city in the south west of France on the Atlantic coast and is one of the most attractive and dynamic cities in France. The L3i works since several years on document analysis and has developed a well-known expertise in "Bande dessinée", manga and comics analysis, indexing and understanding.

The work done by the post-doc will take part in the context of the **SAiL** (Sequential Art Image Laboratory) a joint laboratory involving L3i and a private company. The objective is to create innovative tools to index and interact with digital comics. The work will be done in a team of 10 researchers and engineers.

The work will consist in developing original approaches for recognizing the text in the speech balloons. Indeed, the style of the text change according to the writing style chosen by the author. Each author usually digitize its own writing to create a personalized font, which often looks like a handwriting font. Consequently, from a comic album to another the shape of the characters can change a lot. Classic OCR (optical character recognition) algorithms give poor results. If the OCR is trained, it is only efficient on albums with similar fonts.

The large variability in character representation needs to developed robust approaches able to adapt themselves to the different writing style. The main idea will be to develop strategy able to characterize and learn a style with few samples. Deep learning based strategies will be studied to reach this goal.

Qualifications

Candidates must have a completed PhD and a research experience in image processing and analysis, pattern recognition especially in text recognition. Some knowledge and experience in deep learning is also recommended.

General Qualifications

- Good programming skills mastering at least one programming language like Java, Python, C/C++
- Good teamwork skills
- Good writing skills and proficiency in written and spoken English or French

Applications

Candidates should send a CV and a motivation letter to jcburie [at] univ-lr.fr.