## Rubèn Pérez Tito

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I am a PhD student that joined the Computer Vision community in 2018. I started working on retrieval systems related to text for both natural scenes and handwritten images. Recently I have focused on Vision and Language systems, more specifically exploring the role of recognized text in the image on Visual Question Answering task, both for documents and natural scenes. I enjoy participating in Artificial Intelligence panels open to the public at Barcelona because one of my aims is to bring the progress and concerns from research centers to the public.

Beyond my scientific profile, I love to go to the mountains to ease my mind and admire the beauty of the nature. On the other hand, I enjoy participating in Artificial Intelligence panels open to the public at Barcelona because one of my aims is to bring the progress and concerns from the research centers to the public.

### **Education**

2018 - Present ▶ Ph.D. in Computer Science, Universitat Autònoma de Barcelona, Spain

**Advisor:** Dr. Ernest Valveny

Thesis title: Text based Visual Question Answering.

2016 - 2018 M.Sc. in Computer Engineering, Universitat Autònoma de Barcelona

**Advisor:** Dr. Antonio Espinosa

**Thesis title:** Acceleration of Big Data iterative workflows with MapD-GPU.

■ B.Sc. in Computer Engineering, Universitat Autònoma de Barcelona 2010 - 2016

# Research/Employment Experience

March 2022 – April 2021 Teaching assistant.

> Master in Computer Vision, Universitat Autónoma de Barcelona Subject: Visual Recognition.

Oct. 2018 – July 2021 ■ Teaching assistant.

> Computer Science Engineering, Universitat Autónoma de Barcelona **Subject:** Fundamentals of programming in C.

Apr. 2018 – Sept. 2018 Intern.

Advisor: Dr. Dimosthenis Karatzas

Computer Vision Center, Universitat Autónoma de Barcelona **Subject:** Single shot scene text retrieval.

May 2018 - July 2018 Tutorship.

> Training and support actions of the IT Academy program of Barcelona Activa, Eurecat.

**Subject:** Frontend-backend web technologies.

# Research/Employment Experience (continued)

Oct. 2015 – May 2016

**■** Junior developer.

Banking and Finance consulting department, Everis Spain S.L.U. **Subject:** Bank solutions development with IBM Business Process Manager.

### **Publications**

- Mathew, M., Bagal, V., **Tito, R.**, Karatzas, D., Valveny, E. & Jawahar, C. (2022). Infographic vqa. In *Proceedings of the ieee/cvf winter conference on applications of computer vision* (pp. 1697–1706).
- Gómez, L., Biten, A. F., **Tito, R.**, Mafla, A., Rusiñol, M., Valveny, E. & Karatzas, D. (2021). Multimodal grid features and cell pointers for scene text visual question answering. *Pattern Recognition Letters*, 150, 242–249.
- Mafla, A., Tito, R., Dey, S., Gomez, L., Rusinol, M., Valveny, E. & Karatzas, D. (2021). Real-time lexicon-free scene text retrieval. *Pattern Recognition*, 110, 107656.
- Tito, R., Karatzas, D. & Valveny, E. (2021). Document collection visual question answering. In 2021 international conference on document analysis and recognition (icdar). Springer.
- Tito, R., Mathew, M. & Karatzas, D. (2021). Icdar 2021 competition on document visual question answering. In *International conference on document analysis and recognition* (pp. 635–649). Springer.
- Mathew, M., **Tito, R.**, Karatzas, D., Manmatha, R. & Jawahar, C. (2020). Document visual question answering challenge 2020. arXiv preprint arXiv:2008.08899.
- \*Biten, A. F., \*Tito, Ruben, \*Mafla, A., Gomez, L., Rusinol, M., Mathew, M., ... Karatzas, D. (2019). Icdar 2019 competition on scene text visual question answering. In 2019 international conference on document analysis and recognition (icdar) (pp. 1563–1570). IEEE.
- \*Biten, A. F., \*Tito, R., \*Mafla, A., Gomez, L., Rusinol, M., Jawahar, C., ... Karatzas, D. (2019). Scene text visual question answering. In *Proceedings of the international conference on computer vision (iccv 2019)*.

### **Skills**

Languages ■ English (Fluent), Spanish (Native), Catalan (Native)

Coding 

■ Python, Java, Scala, C, C++, HTML, CSS, Javascript, SQL

Standards and methodologies | ISO 9000, ISO 27000, BPMN, Scrum, TDD, UML

Frameworks PyTorch, scikit-learn, MySQL, MongoDB, Unity

Misc. ■ Science fiction books, Skiing, Cooking, Hiking, Travelling

#### References

#### Dr. Ernest Valveny

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#### Dr. Dimosthenis Karatzas

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#### Dr. Marçal Rusiñol

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