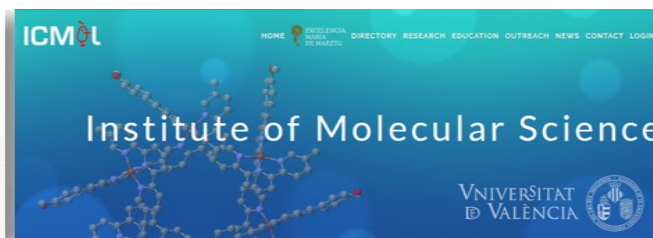




## IWIMSM-04: Iberoamerican Workshop on Model. and Simulation Methods, Valencia, Spain, 2020



International > About us

### International



*The world is a book and those who do not travel read only one page"*

*St. Agustín*

### Vision IA Microservice for the detection of ID personal data

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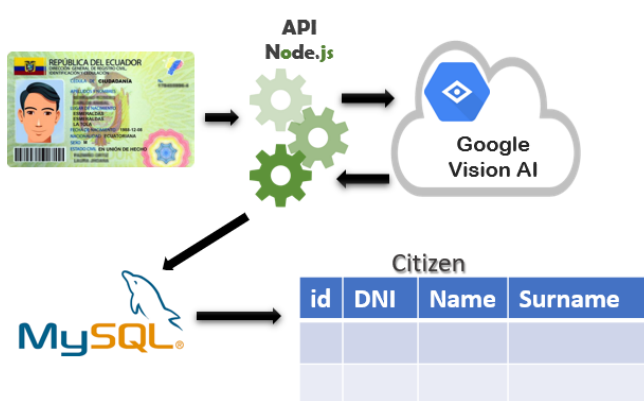
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#### Graphical Abstract



<https://github.com/bernabeortega/DNIRead>

#### Abstract.

*We provided a microservice developed in Nodejs connected to Google Cloud services. From a photograph of the ID obtained through a mobile device, its content is analyzed to extract its information. The Vision AI API uses AutoML Vision, which is capable of interpreting text.*

*The information returned by the Vision AI service is processed in the microservice and the confidential information is anonymized, to be stored in a MySQL database server. The microservice is part of a mobile application to register the entry of citizens to a government institution.*

## References

1. Bisong, E. *Building Machine Learning and Deep Learning Models on Google Cloud Platform: A Comprehensive Guide for Beginners*; Apress: 2019.
2. Kai, W.; Babenko, B.; Belongie, S. End-to-end scene text recognition. In Proceedings of 2011 International Conference on Computer Vision, 6-13 Nov. 2011; pp. 1457-1464.
3. Mishra, A.; Alahari, K.; Jawahar, C.V. Scene Text Recognition using Higher Order Language Priors. In Proceedings of BMVC - British Machine Vision Conference, Surrey, United Kingdom, 2012-09-03.
4. Mulfari, D.; Celesti, A.; Fazio, M.; Villari, M.; Puliafito, A. Using Google Cloud Vision in assistive technology scenarios. In Proceedings of 2016 IEEE Symposium on Computers and Communication (ISCC), 27-30 June 2016; pp. 214-219.
5. Nam, J.; Mencía, E.L.; Fürnkranz, J. All-in text: learning document, label, and word representations jointly. In Proceedings of Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence, Phoenix, Arizona; pp. 1948-1954.
6. Nurzam, F.D.; Luthfi, E.T. Implementation of real-time scanner Java language text with mobile vision Android based. In Proceedings of 2018 International Conference on Information and Communications Technology (ICOIACT), 6-7 March 2018; pp. 724-729.
7. Strouthopoulos, C.; Papamarkos, N. Text identification for document image analysis using a neural network. *Image and Vision Computing* **1998**, *16*, 879-896, doi:[https://doi.org/10.1016/S0262-8856\(98\)00055-9](https://doi.org/10.1016/S0262-8856(98)00055-9).
8. Vishwanath, D.; Rahul, R.; Sehgal, G.; Swati; Chowdhury, A.; Sharma, M.; Vig, L.; Shroff, G.; Srinivasan, A. Deep Reader: Information Extraction from Document Images via Relation Extraction and Natural Language. Cham; pp. 186-201.