



Genoveva Vargas-Solar  
LIG-IMAG Building  
700 av. Centrale, 38401 Saint-Martin-d'Hères  
P.O. Box CS 40700 - 38058 Grenoble cedex 9  
Tel: +33 (0)4 57 42 15 66

**Recommendation letter for Dr. Javier Alfonso Espinosa Oviedo  
for supporting his application to the *Conseil National des Universités***

Grenoble, 14<sup>th</sup> December 2019

Dr. Javier Alfonso Espinosa Oviedo is postdoctoral fellow at University Lyon 3 in the context of the project SUMMIT of the program Pack Ambition of the region Rhône-Alpes-Auvergne, between the CNRS's LIRIS and LIG laboratories. He has been a postdoctoral fellow at the LDE Centre for BOLD Cities of Delft University of Technology, in the Netherlands, applying his data science expertise on smart cities, energy in households and built environment problems within an inter-disciplinary context. Previously, Dr. Javier Alfonso Espinosa Oviedo developed an expertise on data management and processing at scale working in cloud and HPC architectures in the Barcelona Supercomputing Centre (BSC), in Spain, where he worked for two years in the Extreme Computing group. His projects at the BSC were done in collaboration with visualisation and social sciences experts under a complementary vision of data and its use within problems needing important computing resources. Soon after having finished his PhD, Dr. Javier Alfonso Espinosa Oviedo was postdoctoral fellow at the CNRS international unit LAFMIA (UMI 3175) developing solutions for designing data management solutions in service-oriented architectures.

Summarizing, during his first years for professional career, the research of Dr. Javier Alfonso Espinosa Oviedo has focussed on the proposal of a novel data exploration and curation (querying, analysis, visualization, maintenance on storage supports, and sharing) processes that run in different architectures including cloud, high performance computing, GPU guided by data collection properties such as velocity, volume and variety. He has applied his results in the context of trendy society problems such as smart grid, smart cities, crowd management, and data centric sciences contributes with energy data curation for addressing smart grid challenges.). These activities have been



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done through his participation as researcher in FP7 European projects (S2EUNET and CASES), Franco Mexican projects (ORCHESTRA ECOS-ANUIES program, e-CLOUDSS financed by LACCIR project program, CLEVER and SWANS financed by the STIC-AMSUD program of the French government). He led the project CONCERNS partially funded by a Microsoft Azure Grant, Spain and France. In the context of these projects, Dr. Javier Alfonso Espinosa Oviedo was responsible of developing the technical activities of working packages concerning the specification of policy models, the proposal of protocols implementing non-functional properties (i.e., atomicity, security, adaptability), developing data processing and data querying workflows, and designing associated experiments concerning astronomic, e-government and meteorology data collections.

Dr. Javier Alfonso Espinosa Oviedo works effectively for addressing programming and theoretic challenges under a scientific methodology and obtain valuable results that have been published in national and international conferences and journals. He also has shown abilities to understand abstract concepts and put them in practice for the construction of applications. Such applications had led to prototypes that are used for scientific purposes by scientific communities. In 2017 he participated in a technology transfer contract with Grenoble Institute of Technology Incubator, the SATT. In this context, he is one of the authors of HSTREAM a software for Internet of Things environments licenced by this institution and the start-up Clouding Things.

Dr. Javier Alfonso Espinosa Oviedo has also had a teaching and mentoring experience and has designed hands on exercises and lectures on big data management on the cloud (Azure and GoogleApp platforms), data sharding, NoSQL storage and sharing, service-based systems construction, map-reduce based data processing. He has lectured in universities and centres in Europe such as the University of Grenoble Alpes and the Barcelona Super Computing Centre, and in Latin America like at Universidad de la República and the Federal University of Rio Grande do Norte in Brazil. In general, his



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lectures have been part of the master programs of these institutions. He also contributed as co-advisor of engineering and master students in French and Mexican institutions. He currently co-advises a PhD student at the University Grenoble-Alpes. As lecturer, Dr. Javier Alfonso Espinosa Oviedo is pedagogic, energetic and he encourages students in the use of state-of-the-art tools with original exercises and projects, with contemporary teaching strategies and move the interest of students.

Considering the above, I am fully convinced that Dr. Javier Alfonso Espinosa Oviedo is an excellent candidate for an associate professor position. I am sure that his intellectual and personal qualities are relevant characteristics for successfully undertaking academic activities and research projects.

Sincerely,

Dr. Genoveva Vargas-Solar  
French Council of Scientific Research, France  
Full time research scientist  
French Mexican Laboratory of Informatics and Automatic Control  
Deputy Director