

June 24, 2020

## Research statement

## About Me

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Last year student of the MSc. Computer Science for Communication Networks at Télécom SudParis. I started my Computer Science degree at the Simón Bolívar University in Venezuela. Since the beginning of my university studies, I have been interested in developing my academic career, so I participated in a Double Degree program competition to pursue a Master's degree in France. Here, I have learned about different domains in Computer Science, such as Networks, Information Visualization, Human-Computer Interaction and Artificial Intelligence.

## Research Experience

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I have research experience in the Information Visualization and Human-Computer Interaction domains. During my *Interactive Information Visualization* course, I worked with Dr. Tobias Isenberg visualizing biological species habitat distribution information based on images posted on social media. We produced interactive maps of the spatial distribution of different biological species/genera, histograms, and plots of the temporal distribution of the photographs, finding and exploring mismatches between our distribution maps and traditionally established maps<sup>1</sup>. As a result of this work, we published a poster at the *IEEE Conference on Visualization 2019* (IEEE VIS 2019)<sup>2</sup>.

I am currently working in my Master thesis founded by the Ember project<sup>3</sup> in the AVIZ team with Dr. Pierre Dragicevic, where I investigated available literature about embedded data visualizations, situated analytics and personal data analytics. After this initial research, I decided to explore, design and develop a prototype to embed, analyze and interact with augmented nutritional data around dishes. The goal is to provide users with information on how to build a balanced dish in terms of nutrients distribution and portions' size<sup>4</sup>.

## Interests

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I am very organized, methodical and curious. I have very good programming skills, and I have experience working with Data Visualization, Human-Computer Interaction, Augmented Reality and Deep Learning models. I am passionate about exploring technologies and concepts that allow users to be consumers of their Personal Data to influence their everyday decisions. Furthermore, I am enthusiastic about developing Data Visualizations that combine Computer Vision and Augmented Reality for Situated Analytics using diverse data sources. Moreover, I am interested in studying and exploring the impact of techniques users employ to interact with augmented data while they visualize and analyze their data.

Finally, I am really motivated in pursuing a PhD thesis focused on Data, Artificial Intelligence and Interaction because those are emerging fields where there are a lot of interesting approaches and concepts to explore. I am confident that my skills, experience and interest in Data Analysis and Visualization, Computer Vision, Augmented Reality and Human-Computer Interaction can contribute to discovering and developing new ideas, approaches and insights in this research field.

**Rafael BLANCO**

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<sup>1</sup>[hal.inria.fr/hal-02196764](https://hal.inria.fr/hal-02196764)

<sup>2</sup>[ieevis.org/year/2019/info/posters](https://ieevis.org/year/2019/info/posters)

<sup>3</sup>[ember.inria.fr](https://ember.inria.fr)

<sup>4</sup>[Video: Prototype Demo](#)