Javier García Barcos

Experience & Qualifications

Education

2019–Present   **PhD Student in Computer Science**, University of Zaragoza, Spain.
- Topics: Bayesian Optimization.
- Advisor: Ruben Martinez-Cantin.

2015–2017   **Master's Degree in Computer Science**, University of Zaragoza, Spain.
- Best Academic Record Award (2017)
- Master Thesis: *Automatic extraction of materials from photographs using Bayesian optimization.*

2011–2015   **Bachelor's Degree in Computer Science**, University of Zaragoza, Spain.
- Specialization in Machine Learning and Algorithms.
- End-of-Degree Project: *Bayesian Optimization applied into Fluid Dynamics problems.*

Publications

2019   **Javier Garcia-Barcos, Ruben Martinez-Cantin.**
Parallel Robust Bayesian Optimization with Off-policy Evaluations.
In Workshop on Safety and Robustness in Decision Making at Neurips 2019.

2019   **Javier Garcia-Barcos, Ruben Martinez-Cantin.**
Fully Distributed Bayesian Optimization with Stochastic Policies.
In Proceedings of the 28th International Joint Conference on Artificial Intelligence.

Work Experience

2019
8 months   **Research Assistant**, University of Zaragoza, Zaragoza (Spain).
- Research on Bayesian Optimization methods.

2018
4 months   **Research Engineering Intern**, SigOpt, San Francisco CA (USA).
- Assist in optimization research and help implement a state of the art ensemble into SigOpt's core service.
- Applied research on Bayesian optimization and Multimetric optimization.
- Writing blogpost discussing the impact of uncertainty on Multimetric optimization.
- Participate in the full development cycle while implementing new features, improvements and research findings.

2016–2017
6 months   **Research Intern**, University Center of Defense, Zaragoza (Spain).
- Part-time internship while finishing my Master's Degree.
- Technology Transfer project in collaboration with NextLimit.
- Mantaining and Improving BayesOpt (C/C++ Bayesian Optimization Library).
- Bayesian Optimization and MCMC Researching.

Awards & Grants

2019	**DGA Predoctoral Scholarship**, Department of Innovation, Research and University (Aragon Goverment), Spain.
	○ Scholarship that covers the duration of the PhD program (2019–2023).
2017	**Best Academic Record Award of Msc Computer Science**, University of Zaragoza, Spain.
	○ Awarded to the highest GPA of Msc in Computer Science (2015–2017).

Languages

Spanish	Mother Tongue
English	Proficient Spoken and Written

Relevant Projects

2014–Present	**Collaborating with BayesOpt**, *Open Source Bayesian Optimization Library*.
	○ Written in C/C++ with interfaces to Python and Matlab.
	○ I've been helping BayesOpt's author by enhancing and mantaining the library.
2016–Present	**SAFE**, *Simple C++ 2D engine built over SDL*.
	○ Started to improve my Modern C++ skills while adquiring Game Engine insights.
	○ Built with flexibility in mind: ECS architecture and Lua scripting support.
2016	**Realistic Camera Raytracer**, *Realistic camera effects into a 3D Raytracer*.
	○ Final project for Computer Graphics Course.
	○ Camera defects makes the rendered scene more realistic: Depth of field, lens scratches, lens dust, coded apertures and chromatic aberrations.
	○ OpenMP parallelization to speed things up.

Computer skills

Programming Languages	C/C++, Python, Java, C#, Lua	Operating Systems	Linux, Windows, Android
Familiar with	Matlab, JavaScript, HTML/CSS	Source Control	Git, Mercurial, SVN
Game Development	SDL, Unity	Build Tools	CMake, gradle