Guillermo Julián Moreno

Software engineer & mathematician

Personal Data

email	guillermo@gjulianm.me
other links	Github — LinkedIn

Work Experience

March 2015 – Present

Software Engineer — Naudit HPCN

Madrid, Spain

Naudit HPCN is the spin-off of the HPCN-UAM research group. In parallel with the studies for my bachelor degree, I continued there with my work on numeric algorithms and Linux capture driver development and started working in automated network analysis tools. I paused my work there between July of 2016 and January of 2017 to pursue my Master studies at EPFL (Switzerland).

July 2017 – December 2017

Software Engineering Intern — Nestlé Research Center

Lausanne, Switzerland

As my internship for my Master in Computational Science and Engineering at École Polytechnique Fédérale de Lausanne (EPFL), I worked at the Nestlé Research Center developing an application for data analysis of intact protein results by Liquid Chromatography – High Resolution Mass Spectrometry (LC-HRMS). The goal was double: facilitating the scientist's labor of working with the data results from their tools, and also creating and developing models capable of providing insights about the analyzed products and samples.

December 2013 – March 2015

Intern — High Performance Computing and Networking - UAM

Madrid, Spain

HPCN-UAM is a research group in the Universidad Autónoma de Madrid (UAM), where I familiarized myself with high performance networking and computing. I worked on network dependency analysis, Linux driver development for traffic capture, numeric algorithms optimizations with OpenCL and network protocol reverse engineering and analysis.

January 2012 – January 2016

Python, C#, C, C++ developer — Freelance

Remote

During my studies at university, I also worked as a freelancer in several projects, mostly related to Windows Phone development, C# and networking in C/C++ — including dissectors and analyzers in OpenWRT routers. I designed and developed Windows Phone applications and assisted in the development, refactor and optimzation of several projects in C# and C, and I also collaborated with eGarante in the design of a Firefox addon and a Python service to automatically sign user's conversations on social networks.

January 2010 – October 2015

Writer and Team coordinator — Weblogs SL

Remote

During five years, I wrote about insights, news and analysis about web, software and technology in Genbeta and Xataka, two of the most visited spanish publications in their category. I was also responsible for the management of the Xataka Windows's editorial team and for its contents during its first two years (from 2013 to 2015).

Education

2016 - 2018 **MSc, Computational Science**
École Polytechnique Fédérale de Lausanne (Switzerland)
Grade: 5,12 / 6
Thesis: Automatic Estimation of Mixtures of alpha-stable distributions (grade: 6/6)

2011 - 2016 **Double degree, Mathematics and Computer Engineering**
Universidad Autónoma de Madrid (Spain)
Grade: 8,16/10
Thesis: Monitorization, capture and intelligent storage of network traffic at 40Gbps (grade: 10/10)

2009 - 2011 **International Baccalaureate**
Instituto Ramiro de Maeztu, Madrid

Publications

[1] *Fast parallel α-stable distribution function evaluation and parameter estimation using OpenCL in GPGPUs*. Guillermo Julián Moreno, Jorge E. López de Vergara, Iván González, Luis de Pedro, Javier Royuela del Val, and Federico Simmross Wattenberg. Statistics and Computing, 2016. URL http://dx.doi.org/10.1007/s11222-016-9691-9.

[2] *Monitoring, capture and intelligent storage of network traffic at 40 Gbps*. Guillermo Julián Moreno, May 2016. URL https://repositorio.uam.es/handle/10486/675469. End of degree project.

[3] Guillermo Julián-Moreno, Rafael Leira, Jorge E. López de Vergara, Francisco J. Gómez-Arribas, and Iván González. *On the Feasibility of 40 Gbps Network Data Capture and Retention with General Purpose Hardware*. In *Proceedings of the 33rd Annual ACM Symposium on Applied Computing*, SAC '18. 2018. URL http://dx.doi.org/10.1145/3167132.3167238.

[4] Julián-Moreno, Guillermo. *Automatic Estimation of Mixtures of alpha-stable distributions*. Master's thesis, École Polytechnique Fédérale de Lausanne (Switzerland), July 2018. URL http://gjulianm.me/MasterThesis_JulianMoreno_MixturesAlphaStables.pdf. Supervisor: Anthony C. Davison.

Programming skills

Languages - Advanced knowledge
C, C++, C#, Python, LaTeX, Matlab, Awk.

Languages - Medium knowledge
Java, Haskell, Bash, Javascript, HTML, CSS.

Frameworks and enviroments
Azure, Linux kernel, Numpy, OpenCL, GSL, Pandas, Paraview, Windows Phone,

Main technologies and software used
Sublime Text, Vim, Zsh, Visual Studio, Git, Gitlab, Linux, OS X.

Languages

Spanish · Mothertongue

English · Advanced (conversationally fluent) - TOEFL 105/120

French · Medium - advanced

Catalan · Medium (mainly spoken)

July 16, 2018