

Jorge L. García-Franco | CV

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Passionate about atmospheric and climate science with strong computational skills.

Education

Academic Qualifications

- **National Autonomous University of Mexico (UNAM)** **Mexico City**
BSc, Earth Sciences. Area of expertise: Atmospheric Sciences. , Graduated with honors 2012–2017
GPA: 9.67/10
- **University of Leeds** **Leeds, UK**
Masters of Research: Climate and Atmospheric Science. 2017–present
Expected Graduation: September, 2018.

Notable Projects

- **MRes Project (present)** *Intensity Changes in Tropical Cyclones observed in Dropsondes*
Through the analysis of dropsonde measurements of tropical cyclones in the north Atlantic and East Pacific Oceans, this study will observe the structural differences in the boundary layer and dynamical distinctions between tropical cyclones that intensified to major hurricanes and those that didn't.
- **Research Project 2015–2017:** *Mexico City's mixed layer variability*
The diurnal and long term trends of the mixed layer over Mexico City were studied through the use of a Vaisala Ceilometer CL31. The results were in agreement when compared to MLH values reconstructed 15 from i) radiosonde data, and ii) surface and vertical column densities of a 16 trace gas. Project ended with a submission of the manuscript to the journal *Boundary Layer Meteorology* (still in revision).
- **MITACS Globalink Research Internship (2016)** *University of Saskatchewan, Canada*
Use of a Land Surface Scheme (CLASS) to study the water balance at Duck Lake, Saskatchewan, Canada and the processes related to the subsurface hydrology of the aquifer.

Previous Employment

- **Global Institute for Water Security, University of Saskatchewan** **Canada**
Data Analyst Private Contractor August 2016–July 2017
I was responsible for the development of a set of shell and python scripts for a Land Surface Scheme set of models, including, for example JULES and NOAH-MP, to be run simultaneously and consistently for a given number of sites in the Canadian Prairies.

- **University Network of Atmospheric Observatories** **UNAM, Mexico**
Research Assistant CONACyT *2015-2017*
For two years I was in charge of the set of ceilometers and LIDARs that were in the network, particularly focusing on writing scripts for the processing of backscattering signal and the use of several algorithms to retrieve mixed-layer height. Remote controlling of the data through scripting and server control of the data were also part of my duties.

Awards / Scholarships

- **Faculty of Sciences, UNAM**
Gabino Barrera Medal Recipient *April 2017*
Medal awarded to the single highest achieving student of the BSc, Earth Sciences (Class of 2013).

Academic Activities

- **Faculty of Sciences, UNAM**
Teaching Assistant *February 2016-July 2017*
 1. Term 2016-2: Mathematics for Earth Sciences II, Computing and Data Analysis of Geophysical Data.
 2. Term 2017-1: Mathematics for Earth Sciences III, Climate Change.
 3. Term 2017-2: Mathematics for Earth Sciences IV, Computing and Data Analysis of Geophysical Data.
- **Faculty of Sciences, UNAM**
Workshop Instructor *2017*
 - Introduction to Python and Introduction to L^AT_EX.
- **Faculty of Sciences, UNAM**
Earth Sciences Student Representative *2015-2017*
Student representative at academic council for the BSc Earth Sciences for the academic period 2015-2017. Highest academic student role in charge of selecting new modules and personal participation in the selection of lecturers, as well as solving problematics for students in the Faculty.

Technical and Personal skills

- **Programming Languages:** Highly proficient in: Python, Matlab, BASH (shell scripting), TeX and Julia. Also basic ability with: Fortran, NCL and Maple.
- **Language Skills:**
 - English (95 % IELTS 8.0 Overall.).
 - French: B1.
 - Spanish: Native Speaker.
- **General Research Skills:** Good presentation skills, works well in a team, can handle server or large data sets, can write well organised and structured reports.

Interests

- Remote Sensing of the Atmosphere: use of RADAR and LIDAR techniques to measure relevant properties of the atmosphere.
- Arctic climate change and cloud climate variability.