Juan David
ORJUELA ZÚÑIGA

PERSONAL INFORMATION

PHONE NUMBER:	+57 300 481 5575 (Bogotá, Colombia)
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GITHUB:	github.com/juandavido

EDUCATION

PRESENT
JANUARY 2015

GRADUATE STUDENT of Master of Science - Physics. Currently in second year at **Universidad de los Andes** in Bogotá, Colombia. Relevant courses: Bioinformatics, Advanced Computational Methods.

DECEMBER 2014
AUGUST 2007

BACHELOR OF SCIENCE - Physics at **Universidad Nacional de Colombia** in Bogotá, Colombia. GPA=3.9/5
Relevant courses: Simulation of Physical Systems, Computational Tools, Programming and Numerical Methods, Object-oriented Programming.

JUNE 2007

BACHELOR from **Colegio Champagnat** in Popayán, Cauca, Colombia.

RESEARCH

AUGUST 2015
JUNE 2015

Researcher for the project: "Mechanical properties of lipid bilayers containing lysolipids" funded by the Research and Graduate Education Committee - Universidad de los Andes. Advisor: Antonio Manu Forero Shelton.
Proposed, tested and executed biophysical models to determine the set of parameters that reproduced the best the physicochemical properties of the system under study.

JUNE 2015
JANUARY 2015

Research assistant for the project: "Estudio de Factibilidad de uso de detectores MEDIPIX para imágenes mamográficas". Branch: "Estudio de Tejidos Blandos Animales con Microcalcificaciones Usando el Detector MEDIPIX".
Designed and executed tests that validated the viability of using MEDIPIX detectors for early and safe breast cancer diagnosis using animal tissue.

MARCH 2014
AUGUST 2013

Thesis project: Energetic analysis of the extraction process of a phospholipid from a lipid bilayer using Molecular Dynamics simulations (Advisor: José Daniel Castaño).
Extracted, processed and produced visualization of data to measure changes in membrane properties from simulations.

TEACHING EXPERIENCE

PRESENT
AUGUST 2015

Computational Tools Lecturer at Universidad de los Andes, Bogotá
Teach and help students from STEM fields to develop programming skills in a high-level language (Python), with methods and tools for basic numerical and data analysis.

June 2015 January 2015	Physics II Lab Lecturer at Universidad de los Andes, Bogotá Train STEM students on the methods and skills for experimental physics.
June 2015 January 2015	Basic Physics II Lab Lecturer at Universidad de los Andes, Bogotá Train life sciences students on the methods and skills for experimental physics.
June 2015 January 2015	Math Tutor (bilingual - online) for Latinhire Inc., Bogotá Help tutoring college and high school students with drop-in sessions for areas ranging from basic math to differential equations, including math for social sciences and business majors.

Schools and Events

August 2015	2015 Martini Coarse-Graining Workshop, Groningen, The Netherlands
September 2014	2nd Workshop on Statistical Physics, Bogotá, Colombia,
February 2014	58th Annual Meeting of the Biophysical Society. San Francisco, CA.

Scholarships and Distinctions

November 2007	First place regionally in the Colombian Standardized Tests to access higher education (ICFES) of 2007.
June 2007	First place nationally in the Colombian Standardized Tests to access higher education (ICFES) in the first semester of 2007.
June 2005	First place at the regional test. XXIV Colombian Mathematical Olympiads - Intermediate level (competed through the final classificatory round). Universidad Antonio Nariño.

Languages

Spanish:	Native proficiency.
English:	Full professional proficiency
French:	Limited working proficiency
German:	Basic proficiency

Computer Skills

Programming Languages:	C++ (2.5 years), C (1.5 years), Python (1.5 years).
Basic Knowledge:	GitHub, LaTeX, UNIX.
Operating Systems:	Ubuntu, Windows.

Skills, Interests and Activities

Analytical, intuitive insight with data, resourceful, diplomatic, adaptive, eager to learn.
Data Science, analytics, programming and physics (computational biophysics and chemistry, computational fluid dynamics with Lattice Boltzmann methods).
Choir (member of the University Choir for 1.5 years), Theatre (worked with an independent company for 4 years).