# Juan David ORJUELA ZÚÑIGA

## PERSONAL INFORMATION

PHONE NUMBER: +57 300 481 5575 (Bogotá, Colombia)

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## EDUCATION

PRESENT 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 Bachelor of Science - Physics at **Universidad Nacional de** August 2007 **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.
June 2015	Research assistant for the project: "Estudio de Factibilidad de uso de
January 2015	detectores MEDIPIX para imágenes mamográficas". Branch: "Estudio de
	Tejidos Blandos Animales con Microcalcificaciones Usando el Detector
	MEDIPIX".
March 2014	Thesis project: Energetic analysis of the extraction process of a phospholipid
August 2013	from a lipid bilayer using Molecular Dynamics simulations
	(Advisor: José Daniel Castaño).

## 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	Math Tutor (bilingual - online) for Latinhire Inc., Bogotá

January 2015 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.

#### Interests and Activities

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).