

# ILAN A. ARVELO

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## PROFESSIONAL SUMMARY

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Experienced and resourceful multi-disciplinary research scientist in chemical and biological processes, environmental engineering, animal and food science and food safety offering outstanding statistical skills for data analysis and the control and optimization of processes in a wide variety of settings. A self-driven individual with a strong academic background in data science committed to excellence and with practical teaching experience in biostatistics. Seeking an opportunity to start a long-term professional career conducting research that serves society and supports research outcomes with proactive experimental design, robust statistical analysis, and comprehensive interpretation of results and findings.

## SKILLS

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- Data Science and Biometry
- Engineering and Technology
- Laboratory Experiments
- Statistical Analysis
- Proposal development
- Advanced R programming
- Teaching in Biometry
- Strong leadership skills
- Food Safety and Public Health
- Plant Design and Evaluation
- Databases Development
- Process Optimization

## EDUCATION

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**Doctor of Philosophy:** Animal Science  
**Texas Tech University**, Lubbock, Texas 2015 to Current  
August 10<sup>th</sup>, 2019.

**Master of Science:** Environmental Engineering  
**University of Valladolid**, Valladolid, Spain 2014

**Bachelor of Science:** Chemical Engineering  
**National Experimental University of Francisco de Miranda**, Punto Fijo, Venezuela 2011  
Academic rank: **1<sup>st</sup> Place.**

## ACADEMIC RECOGNITION

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- Data scientist with R track statement of accomplishment: awarded by DataCamp, INC, on November 11<sup>th</sup>, 2018.
- 1<sup>st</sup> Place, Outstanding Ph.D. Graduate Student Research Award: received on March 30, 2018, for the participation in the poster competition of the Animal and Food Sciences Department at Texas Tech University.
- Scholarship and Travel Grant from FMI Foundation: Scholarship awarded for the 2017-2018 academic year to support academic expenses and also, to attend to the Safe Quality Food International Conference, November 7<sup>th</sup>-9<sup>th</sup>, 2017 in Dallas, Texas.
- 1<sup>st</sup> Place Award: in the category “Natural Science I” of the Sixteenth Annual Graduate School Poster Competition. Awarded on the 30<sup>th</sup> day of March 2017.
- Research Carnival Travel Grant Winner: granted on February 22, 2017, for participating in the 4<sup>th</sup> Annual TTU Research Carnival and in order to support the travel to the 2017 IAFP Annual Meeting held in Tampa, Florida.
- 3-A SSI Student Travel Award: for attending the 3-A Sanitary Standards Inc. Annual Meeting held on May 16-19, 2016 in Milwaukee, Wisconsin.
- 1<sup>st</sup> Place Award: in the category “Plant Use & Food” of the Fifteenth Annual Graduate School Poster Competition. Awarded on the 6<sup>th</sup> day of April 2016.
- Honor Recognition: for achieving the maximum GPA of 17.74/20.0 (Venezuela) of the graduates’ promotion of Chemical Engineers of the National Experimental University of Francisco de Miranda, on July, 19<sup>th</sup> of 2011.
- Honor Recognition: for achieving the score of 4.0/4.0 (20/20 Venezuela) in the thesis project named “Optimization of Energy integration processing general-purpose crude oil or synthetic crude oil at atmospheric and vacuum distillation No. 1 unit (PSAY/PVAY-1) of CRP-AMUAY” in order to get the degree of Chemical Engineer.

## PUBLICATION

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Frutos, O.D., **Arvelo, I.A.**, Pérez, R., Quijano, G., Muñoz, R. 2015. Continuous nitrous oxide abatement in a novel denitrifying off-gas bioscrubber. *Appl Microbiol Biotechnol* 99:3695.

## PH.D. SELECTED RESEARCH PROJECTS

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**Arvelo, I.A.**, De Villena J., Sanchez-Plata M. 2019. Statistical Microbial Process Control of Indicator Microorganisms in a Poultry Processing Plant.

**Arvelo, I.A.**, Wakeman C., Sanchez-Plata M. 2019. Biofilm prevention concentration of *Salmonella* spp. using common poultry disinfectants.

**Arvelo, I.A.**, Wakeman C., Sanchez-Plata M. 2018. Use of a drip flow reactor to evaluate *Salmonella* spp. and *Listeria monocytogenes* biofilm formation and interventions under food processing environments.

**Arvelo, I.A.**, Rocha S., Landaida P., Armijo L., Sanchez-Plata M. 2017. Antimicrobial Effect of Copper-based surfaces on environmental foodborne pathogens associated with meat and poultry processing plants.

Calle A., **Arvelo I.A.**, Montoya B., Brashears M., Thompson J. 2017. Evaluation of the effectiveness of a novel LED UV-light for the reduction of *Salmonella* in food contact surfaces and chicken breast.

Arteaga G., Calle A., **Arvelo I.A.**, Sanchez-Plata M. 2017. Assessment tools to measure the level of preparedness with the produce safety rule in the Food Safety Modernization Act in Central America.

## TEACHING EXPERIENCE

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### TEXAS TECH UNIVERSITY - Lubbock, Texas, USA

Teaching Assistant – Biometry 08/2017 - Current

- Lead the informatics laboratory of R programming. Creation, explanation, and evaluation of statistical problems solved by computer programming.
- Teach the application of statistical tests to solve research questions of Animal and Food Sciences.
- Lecturing during fall semesters.

### NATIONAL EXPERIMENTAL UNIVERSITY OF FRANCISCO DE MIRANDA - Punto Fijo, Venezuela

Teaching Assistant – Computer Science 07/2008 to 07/2011

- Academic advising for students: analysis of engineering problems for the creation of solution algorithms and codification in PASCAL programming language.

## EMPLOYMENT HISTORY

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**TEXAS TECH UNIVERSITY** – Lubbock, Texas, USA 09/2015 to Current

Graduate Research Assistant – Food Microbiology

**AGUAS DE VALLADOLID** – Valladolid, Spain 04/2014 – 06/2014

Internship – Environmental Engineering

**PETROLEOS DE VENEZUELA, S.A.** – Punto Fijo, Venezuela 08/2012 – 07/2013

Process Engineer – Distillation

**FLEPACA II, C.A.** – Punto Fijo, Venezuela 01/2012 – 07/2012

Operations Manager – Tank Containers' maintenance depot

## PROFESSIONAL REFEREES

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**Marcos X. Sanchez-Plata, Ph.D.**  
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