

UNIVERSITY OF NEBRASKA–LINCOLN



Phenotype Predictability - Dr. Francisco Muñoz-Arriola

Contact: [Francisco Muñoz-Arriola \(/bse/faculty/francisco-mu%C3%B1oz-arriola/\)](mailto:Francisco.Munoz-Arriola@unl.edu)

Department: • Biological Systems Engineering

Role(s) Needed:

- Graduate Assistant

Students Needed:

- Graduate

The University of Nebraska-Lincoln's Hydroinformatics and Integrated Hydrology Research Group (HIH) has two Ph.D. positions available in (1) *Database Development and Management* and (2) *Genetic-by-Environment Modeling* to be filled by fall 2018. The research topics involve developing information and modeling technologies, analytics and visualization resources to improve the predictability of hybrids in a changing environment. These positions aim to strengthen the collaborative activities between the University of Nebraska-Lincoln and the Genomes to Fields Project and the Delft Institute for Water Education (Delft-IHE) in the Netherlands. The incumbents will earn their degrees in the Department of Biological Systems Engineering, the Department of Agronomy and Horticulture or the School of Natural Resources.

HIH aims to improve the predictability of hybrids through the design of information technologies and improvements of phenotypical and environmental predictability. The overall objective is to develop a conceptual model that enables the prediction of corn hybrids and environmental variables across the United States. We expect candidates to have (1) experience in database development and management; (2) strong programming skills (C, Python, MATLAB or other high-level programming languages); (3) strong oral and written communication skills; and (4) a master's of science degree (or highly qualified students without a master's degree might be considered for a direct-to-Ph.D.). Candidates with a background in computer science and engineering, biological systems, bioinformatics and statistics are desired; however, individuals with strong mathematical and computational experiences are also encouraged to apply.

Interested candidates should email their CV and statement of research interests to Francisco Munoz-Arriola (using the subject "Forecasting Phenotypes Ph.D.") at [fmunoz@ \(mailto:fmunoz@\)unl.edu](mailto:fmunoz@unl.edu).

The application review process will begin March 9, 2018. Applicants are encouraged to submit all the required documents before April 19, 2018.

Full applications should be submitted to either:

The Biological Systems Engineering Graduate Program at:

<http://www.unl.edu/gradstudies/prospective/programs/AgAndBioSystemsEngr>

<http://www.unl.edu/gradstudies/prospective/programs/AgAndBioSystemsEngr>

Or

The School of Natural Resources' Graduate Program at:

<http://snr.unl.edu/gradstudent/applicationprocess.asp> (<http://snr.unl.edu/gradstudent/applicationprocess.asp>)

Lincoln, Nebraska, was recently named the #2 top city with the highest quality of life by *The Huffington Post*. This vibrant city has a large number of parks and trails and ample affordable housing. The cost of living in Lincoln is about 10 percent below the national average. Come check out one of the best college towns in the nation! We are less than an hour's drive from Omaha and an easy three-hour drive to Kansas City.