

Hakeem Frank

Environmental Systems Research Institute (ESRI)
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Areas of specialization

Gaussian Processes • Computational Fluid Dynamics

Education

- 2018-2020 **MSc in Mathematics**, California Polytechnic State University, Pomona
- 2013-2017 **BSc in Mathematics**, Xavier University of Louisiana

Experience

- 07/2019-present **Esri**, Redlands, CA
Data Scientist, User Analytics
- 01/2018-07/2019 **Esri**, Redlands, CA
Analyst, Business Development
- 02/2018-05/2020 **California Polytechnic State University**, Pomona, CA
Research Assistant, Computer Vision
- 09/2016-12/2016 **Propellor Startup Accelerator**, New Orleans, LA
Venture Fellow, Urban Agriculture
- 05/2016-05/2017 **Center of Computational Science**, New Orleans, LA
Research Fellow, Computational Fluid Dynamics
- 08/2015-05/2017 **Kostrov Lab**, New Orleans, LA
Research Fellow, Difference Equations

Publications & Talks

JOURNAL ARTICLES

- 2020 **H. Frank**. "Gaussian Process Models for Computer Vision". *Master's Thesis*.

- 2017 A. Hoover, **H. Frank**, M. Kala, G. Sandler, R. Cortez, and L. Fauci. "Optimizing the Propulsive Performance of Heaving Panels with Nonuniform Elastic Profiles". *Submitted to Physical Review E in November 2017*.

PRESENTATIONS

- 2020 "Gaussian Processes for Aircraft Detection in Aerial Imagery", Oral Presentation, *California Polytechnic State University Mathematics and Statistics Colloquium*, Pomona, CA.
- 2017 "The Euler Number and Computer Vision", Oral Presentation, *Xavier University of Louisiana Math Colloquium*, New Orleans, LA.
- 2017 "Quantifying the Performance of Flexible Propulsors with Nonuniform Stiffness", Oral Presentation, *Xavier University of Louisiana Festival of Scholars Research Symposium*, New Orleans, LA.
- 2017 "Modeling the Impact of Sustainable Growing Practices on Urban Farms", Posterboard Presentation, *Xavier University of Louisiana Festival of Scholars Research Symposium*, New Orleans, LA.
- 2017 "Quantifying the Performance of Flexible Propulsors with Nonuniform Stiffness", Posterboard Presentation, *National Research Conference for McNair Scholars and Undergraduate Research*, College Park, MD.
- 2016 "Quantifying the Performance of Flexible Propulsors with Nonuniform Stiffness", Posterboard Presentation, *Annual Biomedical Research Conference for Minority Students (ABRCMS)*, Tampa, FL.
- 2016 "On the Boundedness Character of First Order Systems of Rational Difference Equations with Periodic Coefficients", Oral and Posterboard Presentation, *Xavier University of Louisiana Festival of Scholars Research Symposium*, New Orleans, LA.

Teaching

- Spring 2017 **Xavier University of Louisiana**, New Orleans, LA
Ordinary Differential Equations, Teaching Assistant
- Fall 2016 **Xavier University of Louisiana**, New Orleans, LA
Calculus II, Teaching Assistant
- Fall 2016 **Xavier University of Louisiana**, New Orleans, LA
Statistics I, Teaching Assistant
- 2014-2017 **Xavier University of Louisiana**, New Orleans, LA
Calculus I-III, Mathematics Resource Center Tutor

Fellowships & Awards

- 2017 Ronald E. McNair Postbaccalaureate Program Scholar

2016	National Science Foundation RTG in Computational and Mathematical Biofluids
2015	National Institute of Health MARC U-STAR Grant Awardee
2013	Xavier University of Louisiana Full Merit Scholarship

Service

2020 - Present	NorthStar GIS , Redlands, CA <i>HBCU Recruitment Volunteer</i>
2017-2018	San Bernardino Mountains Wildlife Society , Lake Arrowhead, CA <i>Wildlife Care Volunteer</i>
2016-2017	Building Infrastructure Leading to Diversity (BUILD) , New Orleans, LA <i>Peer Mentor</i>
2016-2017	Xavier University of Louisiana Department of Mathematics , New Orleans, LA <i>Student Mentor</i>
2014-2017	Agrowtopia Farms , New Orleans, LA <i>Farm Volunteer Coordinator</i>
June 2016	Para El Mundo , Mancora, Peru <i>Dengue Water Treatment Volunteer</i>

Software & Language Proficiencies

PROGRAMMING

Python, R, MATLAB, SQL, C++, Bash, Julia

CLOUD COMPUTING

AWS Redshift, Lambda, EC2, S3, SageMaker

SOFTWARE

ArcGIS, Tableau, PowerBI

LANGUAGES

English (Fluent), Spanish (Fluent)