

# Felix Jimenez

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Work Authorization: US Citizen

## EDUCATION

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<b>Texas A&amp;M University</b> Ph.D. in Statistics	College Station, TX 2020–Present
<b>University of Colorado Boulder</b> M.S. in Applied Mathematics	Boulder, CO 2017–2018
<b>University of Colorado Boulder</b> B.S. in Applied Mathematics	Boulder, CO 2014–2018

## EXPERIENCE

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<b>Texas A&amp;M University</b> Research Assistant	College Station, TX 2020–Present
<ul style="list-style-type: none"><li>– Vecchia Approximation for Bayesian Optimization</li><li>– Using Gaussian process approximation for Bayesian optimization.</li></ul>	
<b>National Institute of Standards and Technology (NIST)</b> Mathematical Statistician	Boulder, CO 2019–2020
<ul style="list-style-type: none"><li>– Hierarchical Gaussian Processes for Outlier Detection</li><li>– Created an outlier detection procedure using Gaussian processes.</li><li>– Permutation Test for Forensic Analysis of Glass</li><li>– Developed a permutation test for <math>\mu</math>-XRF spectra to determine if two sets of glass come from the same source.</li><li>– Generative Adversarial Networks on Low Dimensional Data</li><li>– Investigated the impact of data quality and complexity on fidelity of samples generated by GANs.</li></ul>	
<b>University of Colorado Boulder/NIST</b> Professional Research Assistant	Boulder, CO 2018–2019
<ul style="list-style-type: none"><li>– See Above.</li></ul>	
<b>University of Colorado Boulder</b> Research Assistant	Boulder, CO 2015–2018
<ul style="list-style-type: none"><li>– Statistics Consulting Lab</li><li>– Acted as consultant for groups in Environmental Engineering, Mechanical Engineering and Academic Services.</li><li>– Applied Math Department</li><li>– Undergraduate research assistant for project between physics and applied math.</li></ul>	

## PUBLICATIONS

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- [1] **F. Jimenez**, A. Koepke, M. Gregg, and M. Frey, “Generative Adversarial Network Performance in Low-Dimensional Settings”, *Journal of Research of National Institute of Standards and Technology*, vol. 126, 2021.

- [2] A. Koepke, **F. Jimenez**, K. Kroenlein, and C. Muzny, “Hierarchical Bayesian change point models for chemical properties inference”, presented at the 2019 Joint Statistical Meetings, 2019.
- [3] J. Splett, A. Koepke, and **F. Jimenez**, “Estimating the Parameters of Circles and Ellipses Using Orthogonal Distance Regression and Bayesian Errors-in-Variables Regression”, presented at the 2019 Joint Statistical Meetings, 2019.
- [4] K. Tucker, B. Zhu, R. J. Lewis-Swan, J. Marino, **F. Jimenez**, J. G. Restrepo, and A. M. Rey, “Shattered time: Can a dissipative time crystal survive many-body correlations?”, *New J.Phys.*, vol. 20, Dec. 2018.

## TEACHING

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- **Teaching Assistant** at Texas A&M University Fall 2020  
*Statistical Learning (Stat 436)*
- **Teaching Assistant** at University of Colorado Boulder Fall 2017  
*Calculus 1 (APPM 1350)*
- **Short Course Instructor** at University of Colorado Boulder Fall 2017 - Spring 2018  
*Intro. to R and Social Network Analysis*
- **Learning Assistant** at University of Colorado Boulder 2016-2017  
*Matrix Methods and Physics I*
- **Instructing Assistant with SASC** at University of Colorado Boulder 2015-2016  
*College Algebra and Intro. to College Math*

## PROGRAMMING LANGUAGES

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- **Advanced:** Python, R.
- **Proficient:** C++.
- **Beginner:** Java, Scala.

## TOOLS & LIBRARIES

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- **Advanced:** Numpy, ggplot, Pytorch.
- **Intermediate:** Linux, Spark, Slurm, scikit-learn.
- **Beginner:** Bash, SQL, AWS.

## TALKS

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- Hierarchical GPs for Outlier Detection 2020  
JSM, Topic Contributed
- Glass Stats and Crime: Let’s Make the Right Decision 2019  
JSM, Topic Contributed
- Generative Adversarial Network Performance for Low Dimensional Data 2019  
QRPC, Topic Contributed
- Generative Adversarial Network Performance for Low Dimensional Data 2019  
NIST Colloquium

## POSTERS

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- Measuring Inter-operator Variability 2016  
Rocky Mountain Fluid Mechanics Symposium
- Interacting Quantum Dipoles 2016  
Dynamics Days

## SCHOLARSHIPS AND AWARDS

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- Lechner Graduate Grant, \$6,000 2020
- Cash-In-Your-Account Award, \$200 2020
- Biological Sciences Initiative, \$700 2016
- Biological Sciences Initiative, \$3,500 2015