José Carlos Hernández Azucena, Ph.D.

Industrial Engineering Postdoctoral Fellow



https://kvothesfs.github.io

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Education

University of Arkansas

Ph.D. in Industrial Engineering M.Sc. in Industrial Engineering

Lehigh University

Gene Golub SIAM Summer School (G2S3) on Quantum Computing and Optimization

Escuela Superior de Economía y Negocios

Post-Graduate Diploma

Quantitative Methods for Business and Economics

Business Engineering Bachelor

Magna Cum Laude Valedictorian

Hochschule Furtwangen University

International Engineering: Visiting student

Fayetteville, AR

Fall 2023 Fall 2022

Bethlehem, PA Summer 2023

La Libertad, El Salvador

Feb. 2015

Jan. 2014

Baden-Württemberg, Germany

Winter 2012

Information Science Expertise

Applications Explored - Systems Reliability, Data Analytics, and Machine Learning.

Programming Languages - Python, R, Java, Scala, LATEX, VBA, and Julia

Database Management - Oracle PL/SQL, MongoDB

Machine Learning - SciKit Learn, XGBoost, H2O

Deep Learning - PyTorch, Tensorflow, OpenAI-Gym

Quantum Computing - IBM Qiskit, D-Wave for Quantum Annealing

More details at https://kvothesfs.github.io/competencies/#information-science

Professional Experience

Postdoctoral Fellow

Jan. 2024 - present

Department of Industrial Engineering. University of Arkansas. AR

Research activities on collaborative projects and publications. Teaching a graduate level course, Design of Industrial Experiments, for M.Sc. and Ph.D. Engineering students from multiple departments.

Senior Graduate Research Assistant

Jan. 2018 - Dec. 2023

Department of Industrial Engineering. University of Arkansas. AR

Research activities focused on Computational Methods applied to Systems Reliability. Topics related to Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, Statistical Analysis, and Quantum Computing for Optimization.

Business Intelligence Coordinator

Nov. 2015 - Jan. 2018

Termoencogibles S.A. de C.V. La Libertad, El Salvador.

Data and insights support for the B2B sales team. Automation and development of reports to provide insights into market trends and business opportunities.

More details at https://kvothesfs.github.io/work_experience

Competencies

Interpersonal Communication - Experience doing collaboration in multidisciplinary and diverse teams. Intercultural Communication Skills. Native Spanish speaker, and a beginner German speaker. Empathic Listening.

Insights and Decision Making - Experience translating data analysis to actionable insights for VPs and Directors. Experience adjusting results from research for different stakeholders.

More details at https://kvothesfs.github.io/competencies

Publications

Journal and conference proceedings articles on Deep Learning, Systems Reliability, Simulation, and Optimization. Collaborations in multiple projects and a variety of applications.

More details at https://kvothesfs.github.io/publications

Teaching Experience

Experience as an independent instructor and as a teaching assistant. Courses related to Design of Industrial Experiments, Economic Analysis, Statistics and Probability, Production Planning, and Statistical Programming. Teaching in English and Spanish to diverse audiences.

More details at https://kvothesfs.github.io/teaching

Presentations and Talks

Performed a variety of technical presentations for industry practitioners and academic audiences in specialized conferences.

More details at https://kvothesfs.github.io/talks

Awards and Honors

Outstanding Graduate Student 2023 (Apr. 2023). Department of Industrial Engineering

Distinguished Doctoral Fellowship (Jan. 2018 - May. 2022). University of Arkansas

More details at https://kvothesfs.github.io/awards