Juan Camilo Henao Londono

Curriculum Vitae

Duisburg, Germany
✆ *+49 (163) 284 9948*
✉ *juanhenao21@gmail.com*

Professional Experience

August/2021 Januray/2022	**Intern**, *Business Intelligence Team - auxmoney GmbH*, Düsseldorf, Germany. Analyze business related data to report or improve key factors about the customer-company interaction. Application of Python in different data science projects in the company. Improve the Google AdWords conversion import from externally attributed conversions to improve the selection of users to advertise the product. Implementation of an uplift model to prioritize the customers to be contacted from our sales team. Advance use of git, continuous integration and testing to fulfill the code requirements of the company. Cooperation with senior data scientists to implement relevant code for the company. Use of SQL to create tables for different data analysis relevant for the projects of the team.
April/2021 July/2021	**Research Intern**, *Deutsche Bundesbank*, Frankfurt am Main, Germany. Enable the practical application of acquired knowledge in a central bank-specific context.
April/2019 April/2021	**Lecturer**, *Universität Duisburg-Essen*, Duisburg, Germany. To prepare and lead the solution of the exercises of the econophysics course and "statistical time series analysis" advance laboratory.
February/2015 June/2018	**Lecturer**, *Universidad Nacional de Colombia*, Manizales, Colombia. To prepare, apply and grade tests, experiments and laboratory reports. To prepare and dictate class, lead laboratory sessions and direct group work.
January/2017 May/2018	**Lecturer**, *Universidad Autónoma de Manizales*, Manizales, Colombia. To prepare, apply and grade tests, experiments and laboratory reports. To prepare and dictate class, lead laboratory sessions and direct group work.

August/2014 October/2014	**Research Intern**, *Université de Montréal*, Montreal, Canada. Implement a fully automated method based on the differential technique for estimating optical flow for 3D reconstruction from a stereo pair.

Education

2018–2022	**Ph. D. Physics**, *Universität Duisburg-Essen*, Duisburg, Germany.
2015–2016	**PgD. Strategic Project Management**, *Universidad Nacional de Colombia*, Manizales, Colombia.
2012–2015	**Master of Science in Physics**, *Universidad Nacional de Colombia*, Manizales, Colombia.
2007–2012	**Bachelor of Science in Engineering Physics**, *Universidad Nacional de Colombia*, Manizales, Colombia.

Doctoral Dissertation

Title	*Analyzing Market Microstructure with Methods of Statistical Physics.*
Advisor	Prof. Dr. Thomas Guhr
Description	Application of methods from statistical physics on diverse complex systems. Particularly we researched in price response functions and probability density distributions.

Master Thesis

Title	*Surface roughness estimation by 3D stereo SEM reconstruction.*
Advisors	Dr. Juan Carlos Riaño Rojas, Dr. Juan Bernardo Gómez Mendoza
Description	Scanning Electron Microscopy (SEM) stereo pairs are used to estimate the surface roughness of materials, using dynamic programming and stereo-vision to obtain three-dimensional information.

Computer Skills

OS	Linux, Windows	Programming	Python - Advanced C/C++ - Medium SQL - Medium
Scientific	Matlab, Octave, Mathematica, Origin	Typography	LaTeX, Office

Languages

Spanish	Native	
English	Near-native	*TOEFL iBT Total Score: 98/120.*

French	Near-native	*DALF, C1 Level in accordance with the Common European Framework of Reference for Languages*
German	Intermediate	*Carl Duisberg Center Cologne, German as a foreign language, competence level B2*

Academic Discussion

November 2021   **Juan C. Henao-Londoño, Thomas Guhr**, *Foreign exchange markets: Price response and spread impact*, Physica A: Statistical Mechanics and its Applications, doi:10.1016/j.physa.2021.126587.

April 2021   **Juan C. Henao-Londoño, Sebastian M. Krause, Thomas Guhr**, *Price response functions and spread impact in correlated financial markets*, The European Physical Journal B, doi:10.1140/epjb/s10051-021-00077-z.

February 2017   **J. C. Henao-Londoño, O. D. Arbeláez-Echeverri, J. D. Agudelo-Giraldo, E. Restrepo-Parra**, *Spontaneous Perpendicular Anisotropy in Ultra-thin Ferromagnetic Films*, Journal of Superconductivity and Novel Magnetism, doi:10.1007/s10948-017-4005-9.

July 2014   **J. C. Henao, J. Meunier, J. B. Gómez-Mendoza and J. C. Riaño-Rojas**, *SEM Surface Reconstruction using optical flow and Stereo Vision*, Proceedings of the 2014 International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'14), 2014.

Achievements

2018   **Doctoral Programmes in Germany Scholarship**, *DAAD*, Universität Duisburg-Essen, Duisburg.
Germany

2014   **"Jóvenes Investigadores e Innovadores 2013" Scholarship**, *Colciencias*, Universidad Nacional de Colombia, Manizales.
Colombia

2013   **"Emerging Leaders in the Americas Program (ELAP)" Scholarship**, *Government of Canada*, Université de Montréal, Montreal.
Canada

2013   **"Jóvenes Investigadores e Innovadores 2012" Scholarship**, *Colciencias*, Universidad Nacional de Colombia, Manizales.
Colombia

Additional Information

Additional information is available in my GitHub repository `www.github.com/juanhenao21` or my Website `https://juanhenao21.github.io/`.