2021 Ethics and Explainability for Responsible Data Science (EE-RDS 2021)

Johannesburg, South Africa 27 – 28 October 2021



IEEE Catalog Number: CFP21BA1-POD ISBN: 978-1-6654-8359-9

Copyright © 2021 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP21BA1-POD

 ISBN (Print-On-Demand):
 978-1-6654-8359-9

 ISBN (Online):
 978-1-6654-8358-2

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: (845) 758-0400 Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



Table of Contents

CONFERENCE SYNOPSIS

Charis Harley

2021 ETHICS AND EXPLAINABILITY FOR RESPONSIBLE DATA SCIENCE (E)	E-RDS	3
---	-------	---

A Review of Gender Bias Mitigation in Credit Scoring Models	1
Meardo Corrates-Barquero, Guorieta Marin-Raventos, una Etena G. Barrantes	
Explainable Machine Learning: A Manuscript on the Customer Churn in the Telecommunication	
Risuna W. Nkolele, and Hairong Wang	
Nano Version Control and the Repo as the Next Data Structure in Computer Science and Artifici Intelligence	
2021 ETHICS AND EXPLAINABILITY FOR RESPONSIBLE DATA SCIENCE (EE-RDS) – PANEL DISCUSSIONS	
Panel Discussion: "Trustworthy AI and Lending"	25
Panel Discussion: "Data Stewardship and Responsible Data Science: Lessons from the CODATA-RDA Schools for Research Data Science"	32
2021 ETHICS AND EXPLAINABILITY FOR RESPONSIBLE DATA SCIENCE (EE-RDS) – POSTGRADUATE CHALLENGE	
Classifying Chest X-Ray COVID-19 Images via Transfer Learning	40
Ensemble Deep Learning Method for Covid-19 Detection via Chest X-rays	48
Covid-19 Chest X-Ray Image Classification using Deep Learning	51
Classification Network of COVID-19 based on Multi-modality Fusion Network	
Detection of COVID-19 from Chest X-ray images: A Deep Learning Approach	60
PRNet: Progressive Resolution based Network for Radiograph based disease classification	67