Hafez Ahmad

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CAREER SUMMARY

Highly skilled professional with expertise in geospatial analytics, land change modeling, remote sensing, and machine learning, dedicated to understanding ecological dynamics and environmental changes. My work focuses on water quality analysis, biodiversity conservation, climate change impacts, fluvial geomorphology, landscape management, species distribution modeling, flood mapping, and wildlife management. By integrating remote sensing, landscape ecology principles, and machine learning, I explore the connections between landscape patterns, habitat quality, and biodiversity, advancing knowledge of land change dynamics and climate impacts on ecosystems. My goal is to contribute to evidence-based decision-making and sustainable practices for biodiversity preservation and natural resource management.

PROFESSIONAL SKILLS

- Research
- Communication
- Team building
- Working collaboratively
- Training & Development
- Problem resolution
- People skills
- PPE use
- Supervision Planning
- Content Writing
- Data visualization (M.S. power B.I., Tableau)
- GIS, WebGIS and Remote sensing (ESRI, QGIS, ERDAS, SeaDas)
- Data management
- Scientific Programming (Python, R, Julia, MATLAB, SAS, C++)
- Database (SQLite3/PostgreSQL)
- Version control (Git, GitHub)
- Machine learning and Deep Learning
- Framework (TensorFlow, Scikit-Learn)
- Cloud (GEE, AWS, Azure)

PROFESSIONAL EXPERIENCES

Graduate Teaching Assistant, Mississippi State University, USA, August 2025 - 2027

- Teaching Assistant in Remote sensing, and GIS related classes.

Graduate Research Assistant, Mississippi State University, USA, January 2024- May 2025

- Model and assess seasonal trends in Mississippi Sound water quality, the dynamics of freshwater inflow into the Sound, and the suitability of Sound waters for sustainable oyster production. Funded by U.S. Department of the Treasury.

Graduate Research Assistant, Mississippi State University, USA, January 2022-December 2023

- Developing hydrological connectivity across the Lower Mississippi alluvial valley. Funded by U.S. Geological Survey, Mississippi Department of Wildlife Fisheries and Parks, Mississippi State University, and the U.S. Fish and Wildlife Service.

USDA Graduate Summer Research in High-Performance Computing, USA, June-July 2023

- The project involved remote sensing and GPS technologies for handling and analyzing cattle's big data with HPC system. Funded by U.S. Department of Agriculture,
- **Web Master** (Voluntary)**,** Mississippi chapter American fisheries society, USA, October 2022-December 2025
- Maintaining https://mississippiafs.org and serving as the primary contact for all aspects of the organization's website.

Marine Data Management, Wildlife Conservation Society, Bangladesh and USA, October 2020-December 2021

- Developed Marine Monitoring toolbox for the Bay of Bengal region.
- Development of Sharks and Rays ID guide and Standard working procedure for Data collection.
- Developed ArcGIS online and Python-based Online Interactive dashboard for Covid-19 Monitoring.
- Entered data, quality-checked, summarized GPX data extraction, and generated descriptive statistics for WCS BD marine databases in Excel and other software programs according to a standardized format.
- Compiled and reviewed secondary information for developing MPA management plans, species assessments, and marine spatial plans.
- Assisted with advanced data analysis and modeling and generated maps and graphs for reports and presentations.
- Constructed different theme-based maps for the Wildlife Conservation Society.

EDUCATION

Doctor of Philosophy (January 2024-December 2027)
Department of Geosciences**, Mississippi State University**, Starkville, Mississippi, Expected Graduation in December 2027

- Major in Earth and Atmospheric Sciences
- Coursework: Geodatabase, Philosophy and Ethics, GIS research applications, Quantitively analysis climate data, Simulation Biological Systems.
- GPA (4 for Spring, Fall 2024)

Master of Science (January 2022- December 2023)
Department of Wildlife, Fisheries and Aquaculture, **Mississippi State University**, Starkville, Mississippi, Graduated in May 2024

- Major in Wildlife, Fisheries, and Aquaculture
- Thesis *Hydrologic connectivity between oxbow lakes and rivers within the Lower Mississippi Alluvial Valley*
- Completed coursework in Field remote sensing, R for Managing Wildlife and Fisheries Data, Advanced Remote sensing, Julia for Scientific Computing, Research Methods in wildlife and fisheries, Landscape ecology, Movement ecology, Academic research and writing, GIS programming, Regression analysis with SAS, Analyses of freshwater fish assemblage, and Research/thesis.
- **Outputs**: Two publications (+ 3rd under revision), and one large scale dataset covering six states.
- GPA 3.87

Bachelor of Science (Exchange- Fall 2019)
Marine Sciences, **Florida Gulf Coast University**, Fort Myers, Florida, August 2019- December 2019

- Major in Marine Sciences

- Completed coursework in Coastal Remote sensing GIS, Marine Ecology, Leadership
- Dean's List Honoree
- **3.75** GPA

Bachelor of Science (January 2015-December 2020)
Oceanography, **University of Chittagong**, Chattogram, Bangladesh, January 2015-2020

- Major in Oceanography
- Completed coursework in Applied Statistics, Applied Mathematics, Remote sensing of the oceans, Fluid dynamics, and Sediment transport, Modeling marine processes, Marine resources, Coastal morphology, Physical Oceanography, Chemical Oceanography, Biological Oceanography, Marine microbiology, Physics, Geophysics, Computer and programming, Environmental Management, Law of the sea, Research tools, Hydrography, Hydrocarbon exploration, and seismology, Navigation and seamanship, and Research methodology.
- **3.65** GPA

PUBLICATIONS

1. **Ahmad, H**, F. Jose, Dash, P., D. J. Shoemaker, and Jhara, S.I. (2025). Machine Learning-Based Estimation of Chlorophyll-a in the Mississippi Sound using Landsat and Ocean Optics Data. Environmental Earth Sciences.
2. **Ahmad, H**, Miranda, LE, Corey G. Dunn, Colvin, Mike and Dash, P. (2025). Confluence of time and space: an innovation for quantifying dynamics of hydrologic floodplain connectivity with remote sensing and GIS. River Research and Applications. doi.org/10.1002/RRA.4426.
3. Frank Juma Ong'ondo, Shrinidhi Ambinakudige, Philista Adhiambo Malaki, Peter Njoroge, **Hafez Ahmad**. (2025). Using geographic information systems and remote sensing technique to classify land cover types and predict grassland bird abundance and distribution in Nairobi National Park, Kenya. doi.org/10.1016/j.ijgeop.2025.02.003.
4. Islam, M. S., Dash, P., Nur, A., **Ahmad, H**., Panda, R. M., Wolfe, J. S., Turnage, G., Hathcock, L., Chesser, G. D., and Moorhead, R. J. (2024). Estimation of Chlorophyll-a in Uncrewed Aircraft Systems Imagery using Autonomous Surface Vessel data by employing Machine Learning Algorithms and Innovative Feature Selection Techniques, Ecological Informatics, 85, 102954.
5. **Ahmad, H**., Jhara, S.I. (2024) Mapping the Dynamics of Particulate Organic Carbon: Satellite Observations of Coastal to Shelf Variability in the Northeastern Gulf of Mexico. Ocean Science Journal. doi.org/10.1007/s12601-024-00203-9.
6. **Ahmad, H**., Dash, P., Panda, R.M. (2024). Integrating machine learning and remote sensing for long-term monitoring of chlorophyll-a in Chilika Lagoon, India. Environ Monit Assessment. doi.org/10.1007/s10661-024-13463-8.
7. **Ahmad, H.**, Miranda, L.E., Dunn, C.G., Boudreau, M.R., Colvin, M.E. (2024). Connectivity patterns between floodplain lakes and neighboring streams in the historical floodplain of the Lower Mississippi River. Ecological Indicators. doi.org/10.1016/j.ecolind.2024.112808.
8. **H. Ahmad**, F. Jose and D. J. Shoemaker. (2024). Mapping, Dynamics, and Future Change Analysis of Sundarbans delta using Cellular Automata and Artificial Neural Network Modeling. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, doi: 10.1109/JSTARS.2024.3367116.

9. **Ahmad**, Hafez. "Hydrologic connectivity between oxbow lakes and rivers within the Lower Mississippi Alluvial Valley" (2024). Theses and Dissertations. 6068. https://scholarsjunction.msstate.edu/td/6068
10. **Ahmad, H**., Abdallah, M., Jose, F., Elzain, et al. (2023). Evaluation and mapping of predicted future land use changes using hybrid models in a coastal area. Ecological Informatics, 102324. doi.org/10.1016/j.ecoinf.2023.102324.
11. **Ahmad Hafez**, Jose Felix, Bhuyan Md. Simul, Islam Md. Nazrul, Dash Padmanava. (2024). Seasonal influence of freshwater discharge on spatio-temporal variations in primary productivity, sea surface temperature, and euphotic zone depth in the northern Bay of Bengal. Acta Oceanologica Sinica., doi: 10.1007/s13131-023-2254-y
12. **Ahmad, H**., Jose, F., Islam, M. S., & Jhara, S. I. (2023). Green Energy, Blue Economy: Integrating Renewable Energy and Sustainable Development for Bangladesh. Marine Technology Society Journal, 57(4), 52-69.
13. **Ahmad, H**. (2019). Machine learning applications in oceanography. Aquatic Research, 2(3), 161-169. doi.org/10.3153/AR19014.
14. **Ahmad, H**., Jhara, S.I. (2019). Present status of impacts of climate change and adaptations in Bangladesh coastal areas. In Social Change A journal for social development (Vol. 9, pp. 71–81). Young Power in Social Action.
15. **Ahmad, H**. (2019) 'Bangladesh Coastal Zone Management Status and Future Trends', Journal of Coastal Zone Management, 22(1), pp. 1–7. doi: 10.4172/2473-3350.1000466.

SUBMITTED MANUSCRIPTS

1. **Ahmad, H**., Jose, Felix, Dash, P. Bhuyan, Md. Simul. (2025). Predictive Analysis of Land Use Modeling for Chittagong, Bangladesh Utilizing Remote Sensing and Machine Learning. Remote Sensing in Earth Systems Sciences.
2. **Ahmad, H**., Jose, Felix, MM Nabi; Shakila Islam Jhara, Frank Juma Ong'ondo (2025). Land Use and Land Cover Dynamics of Irrawaddy Delta: Remote Sensing Analysis and Future Projection. Remote Sensing Applications: Society and Environment.
3. **Ahmad, H**. (2025). River Discharge Dynamics: Temporal and Spatial Effects of River Discharge on Chlorophyll-a and Variability in the Northern Gulf of Mexico. Estuarine, Coastal and Shelf Science.
4. **Ahmad, H**, F. Jose, D. J. Shoemaker, Dash, P and Jhara, S. I. (2025). Hypoxia in the northern and eastern Gulf of Mexico: A Machine Learning Approach for Evaluation and Prediction. Regional Studies in Marine Science.
5. **Ahmad, H**, et al. (2025). Long-Term Trends and Seasonal Drivers of Water Quality in US Southern Coastal National Reserves: Unraveling the Impacts of Climate Change. Estuarine, Coastal and Shelf Science.
6. **Ahmad, H**, et al. (2025). Estimating algal bloom and trophic status in Lake Okeechobee, Florida using VIIRS and OCI/PACE satellite imagery and Machine learning*
7. **Ahmad, H**, Miranda, LE, Dunn, C. G, and Colvin, Mike. (2025). Hydrologic connectivity in floodplain systems: A review. Freshwater.
8. **Ahmad, H**, Jose, Felix, Dash, P. (2025). Mesoscale Eddies and their Impact on Primary Productivity in the Bay of Bengal. Journal of Environmental and Earth Sciences.
9. **Ahmad, H**, et al. (2025). Use and Land Cover Dynamics of Irrawaddy Delta: Remote Sensing Analysis and Future Projection. Remote Sensing Applications: Society and Environment.

10. Frank Juma Ong'ondo, Shrinidhi Ambinakudige, Philista Adhiambo Malaki; **Hafez Ahmad**; Qingmin Meng; Kuria Antony. 2025.Land cover change and future projection analysis for Nairobi National Park and adjacent landscapes, using GIS, remote sensing, and cellular automata-artificial neural network. Remote Sensing Applications: Society and Environment.

BOOKS / CHAPTERS

1. Elisabeth Fahrni Mansur, G M Masum Billah, Nadim Parves, Robiul Kauser, Mohammad Shamsuddoha, Ashik Jahan Galib, Naim Khandakar, **Hafez Ahmad**, Rasel Mia, Md. Arafat Rahman Khan and Brian D. Smith (2022). Sharks and Rays of Bangladesh: A guide to identifying protected species and their commonly traded parts. Bangladesh Forest Department and Wildlife Conservation Society, Bangladesh.

PROCEEDINGS AND CONFERENCE ARTICLES (* in prep/submitted)

1. **Ahmad**, H., Jose, Felix, Dash, P and Jhara, S. (2024). Integrating Remote Sensing and Field Survey Data: Machine Learning Approaches for Hypoxia Evaluation and Prediction in the Northern Gulf of Mexico. IGARSS 2024 - 2024 IEEE International Geoscience and Remote Sensing Symposium*.
2. Md. Mazaharul Islam, **Hafez Ahmad**, Mohammad Saydul Islam Sarkar, Jose Felix. Sustainable Coastal Zone Management in Bangladesh: A Blue Economy Perspective through Remote Sensing data. Taiwan International Conference on Ocean Governance 2023 (TICOG 2023).
3. **H. Ahmad** and F. Jose, "Mapping, Dynamics, and Future Change Analysis of Sundarbans delta using Cellular Automata and Artificial Neural Network Modeling," IGARSS 2023 - 2023 IEEE International Geoscience and Remote Sensing Symposium, Pasadena, CA, USA, 2023, pp. 2600-2602, doi: 10.1109/IGARSS52108.2023.10282057.
4. Md. Mazaharul Islam, **Hafez Ahmad**, Mohammad Saydul Islam Sarkar, Jose Felix. A comprehensive framework for harnessing blue economy benefits in Bangladesh's central coastal zone. 9th International Conference on Water and Flood Management-ICWFM 2023.
5. **H. Ahmad** and F. Jose, "Seasonal influence of freshwater discharge on primary productivity and euphotic depth in the northern Bay of Bengal," IGARSS 2023 - 2023 IEEE International Geoscience and Remote Sensing Symposium, Pasadena, CA, USA, 2023, pp. 4023-4024, doi: 10.1109/IGARSS52108.2023.10281755.

ABSTRACTS/ POSTERS (* in prep/submitted)

1. **Ahmad, H**., & Dash, P. Long-Term Water Quality Trends and Seasonal Drivers in the Western Mississippi Sound: A Remote Sensing and Machine Learning Approach. 14th International Symposium on Biogeochemistry of Wetland & Aquatic Systems June 1-5, 2025, at the Hilton Baton Rouge Capitol Center, Baton Rouge, LA.
2. **Ahmad, H**., & Dash, P. Remote Sensing and Machine Learning for Long-Term Water Quality Monitoring in the Western Mississippi Sound. Spring 2025 Graduate Research Symposium, Feb 15, 2025, at the Old Mian Academic Center, Starkville, MS

3. **Ahmad, H**., & Dash, P Remote Sensing of Water Quality Parameters over Western Mississippi Sound by Using Sentinel-3 OLCI and Machine Learning. ASLO 2025 Aquatic Sciences Meeting 26-31 March 2025 in Charlotte, North Carolina, USA.
4. **Ahmad, H**., & Dash, P. Modeling Hypoxia in the Gulf of Mexico: A Machine Learning Approach with Remote Sensing and Field Data. Fall 2024 Graduate Research Symposium.
5. **Ahmad**, H., & Dash, P. Remote Sensing of Water Quality Parameters over Western Mississippi Sound by Using Sentinel-3 OLCI and Machine Learning. The Mississippi 2024 Water Resources Conference*.
6. **Ahmad, H.**, Jhara, S.I. AI-Driven Approaches for Real-Time Satellite Data Processing and Analysis. NASA Accelerating Informatics for Earth Science ,2024.
7. **Ahmad, H.,** Jose, F., Jhara, S. I & Dash, P Predicting Hypoxia in the Northern and Eastern Gulf of Mexico: A Machine Learning Approach Combining Remote Sensing and Field Data. Mississippi Academy of Sciences Summer Science and Engineering Symposium, 2024.
8. **Ahmad, H.,** Jose, F., Jhara, S. I & Dash, P. Mesoscale Eddies and their Impact on Primary Productivity in the Northern Bay of Bengal. Ocean Sciences Meeting 2024 – AGU, New Orleans, Louisiana.
9. **Ahmad, H.,** Jose, F., Jhara, S. I & Dash, P**.** Hypoxia in the Northern Gulf of Mexico: A Comparative Analysis of Machine Learning Algorithms for Evaluation and Prediction. Ocean Sciences Meeting 2024 – AGU, New Orleans, Louisiana.
10. **Ahmad, H.,** Jose, F., Jhara, S. I & Dash, P**.** Eddy-driven Chlorophyll Concentration Variability in the Andaman Sea. Ocean Sciences Meeting 2024 – AGU, New Orleans, Louisiana.
11. Islam, M.S**,** Dash, P, Nur, A, **Ahmad, H.,** Panda, R., Wolfe, J.S, Hathcock, Lee., Chesser, G. D., & Moorhead, R. Estimation of Chlorophyll-a in Uncrewed Aircraft Systems Imagery using Autonomous Surface Vessel data by employing Machine Learning Algorithms and Innovative Feature Selection Approaches. Ocean Sciences Meeting 2024 – AGU, New Orleans, Louisiana.
12. **Ahmad, H.,** Jose, F., Islam, M. S., & Jhara, S. I. Sustainable Development through the Synergy of Green Energy and Blue Economy in Bangladesh. 1st International Conference on Oceanographic 2024 (ICO-2024), BORI, Cox's Bazar, Bangladesh.
13. **Hafez Ahmad**, L. E. Miranda, Corey G. Dunn, Mike Colvin. Hydrological connectivity patterns in oxbow lakes of the Lower Mississippi Alluvial Valley. 153rd Annual Meeting of the American Fisheries Society,2023.
14. Devin. M. Raburn, **Hafez Ahmad**, Patrick Allison Jr., Susan B. Adams, Zanethia C. Barnett, Ryan Garrick, Kenneth A. Sterling, Sara Cathey, Michael E. Colvin, and Corey G. Dunn. Uncharted waters: high-resolution stream networks reveal hidden habitats for petitioned headwater crayfishes. Southern Division of the American Fisheries Society,2023.
15. **Hafez Ahmad**, L. E. Miranda**,** Corey G. Dunn, Mike Colvin. A systematic review on hydrological connectivity relevant to oxbow lakes: Research concepts, progress, approaches, scales, and future directions. 49th Annual Meeting of the MSAFS,2023.
16. **Hafez Ahmad**, L. E. Miranda, Corey G. Dunn, Mike Colvin. Assessing the Relationship between Hydrological Connectivity and Fish Assemblage in the Mississippi Alluvial Valley Floodplain. MSU Graduate Research Symposium,2023.

17. **Hafez Ahmad** and Felix Jose. Spatiotemporal variability of SST and primary productivity in the Bay of Bengal. STEM Undergraduate Research and Internship Symposium, 2019, Florida Gulf Coast University, Florida, USA.
18. Kelly Chase, **Hafez Ahmad** and James Douglass.2019. Are invertebrates in tape grass beds as diverse and productive as those in seagrass beds? STEM Undergraduate Research and Internship Symposium, 2019, Florida Gulf Coast University, Florida, USA.
19. **Hafez Ahmad**, Shakila Islam Jhara, and Md. Wahidul Alam.2021. Collaborative approach and role of the marine spatial planning to support integrated coastal zone management in Bangladesh.8th International Conference on Water and Flood Management (ICWFM 2021)29-31 March 2021, Dhaka, Bangladesh.

SOFTWARE / CODE RELEASE

1. Code for Connectivity patterns between floodplain lakes and neighboring streams in the historical floodplain of the Lower Mississippi River | U.S. Geological Survey
2. https://github.com/hafez-ahmad/DeepLearning-Crop-Identification-based-on-Remote-sensing-Data
3. Bangladesh Spatial Monitoring and Reporting Tool: Patrolling toolbox

Field Experiences

1. Water sample collection, Sediment profiling, IFCB operating
2. Oceanographic field instruments deployment and recovery.

ACHIEVEMENTS, AWARDS, AND HONORS

1. **ACCESS CSSN Community program Grants-2024 (~$2500).**
2. **ACCESS CSSN Community program Grants-2023 (~$2500).**
3. **American Geophysical Union travel Grant -2024 ($1000).**
4. **National Science & Technology (NST) Fellowship 2021-22 (~$600).**
5. Summer program "Institut Pierre-Simon Laplace Climate Graduate School, France" -2020
6. Digital Bootcamp on Regional TechCamp 3rd Prize (Bangladesh Team)-2020
7. Dean's listed by Florida Gulf Coast University, USA- December 2019
8. Global Undergraduate Exchange Program with Fulbright scholarship from U.S. Embassy- 2019
9. Project of Ocean Literacy, Bangladesh -2017 -2020
10. Student ambassador of "SEVENSEA"- December 2016.
11. School Scholarship from "Chittagong Metropolitan" Bangladesh -January 2012
12. Scholarship from "Bangladesh Madrasah Education Board," Bangladesh- April 2012

ACADEMIC MENTORSHIP AND INTERACTION

1. Evaluator for the Mississippi Honors Conference at Mississippi State University in Spring 2023.
2. Guided five students from the University of Chittagong on their thesis in 2023.
3. Evaluator for the undergraduate symposium at Mississippi State University in Spring 2023, Spring 2024.

PROFESSIONAL MEMBERSHIP

1. The Oceanography Society (Student member: 18358)
2. American Fisheries Society Mississippi State Sub-unit (Secretary-2022-2023)
3. American Fisheries Society and Invasive and Introduced Species Section (113988).
4. Mississippi Chapter of the American Fisheries Society
5. IEEE Student Membership and IEEE Young Professionals (95409665)
6. Blue Green Foundation Bangladesh (Founding member)
7. Student member of American Geographical Society

Leadership

1. Secretary- American Fisheries Society- Mississippi State chapter- (2022-2023)

PORTFOLIOS AND PROFILES

1. Google Scholar (citations: - 315)
2. Researchgate (citations: - 253)
3. LinkedIn
4. Website
5. GitHub
6. Medium

ACADEMIC TALKS/ TRAININGS

4. Python Data Analysis and Visualization-2024
5. Harnessing-the-Power-of-Cloud-and-Machine-Learning-for-Climate-and-Ocean-Advances-2023
6. Undergraduates at American University-2021

Reviewer (No. of reviewed articles/ Book chapters=31)

1. Remote Sensing Applications: Society and Environment (7)
2. Journal of Coastal Research (5)
3. Environmental Monitoring and Assessment (2)
4. Scientific Reports (1)
5. Remote Sensing of Environment (1)
6. Journal of Applied Life Sciences and Environment (1)
7. Environmental Research (1)
8. Journal of hydrology (1)
9. Estuarine, Coastal and Shelf Science (1)
10. Geoscience Frontiers (1)
11. Discover Environment (1)
12. Mitigation and Adaptation Strategies for Global Change (2)
13. Frontiers in Marine Science (1)
14. Journal of Applied Life Sciences and Environment (1)
15. Marine pollution bulletin (1)
16. Thalassas: An International Journal of Marine Sciences (1)
17. Frontiers In Freshwater Science (1)
18. B P International Book publisher (2)
19. Asian Research Journal of Arts & Social Sciences (1)

CERTIFICATIONS, PROFESSIONAL TRAININGS, AND WORKSHOPS

1. Leaky deltas: sources or sinks in the global carbon cycle - 2025
2. Introduction to Plankton, Aerosol, Cloud, Ocean Ecosystem (PACE) Hyperspectral Observations for Water Quality Monitoring- 2024
3. Anaconda Python for Data Science Professional Certificate- 2024
4. NASA PACE satellite hackathon – 2024, August (selected for final participation)
5. Delft3D modeling, 2024 by institute for water education.
6. Large Scale Applications of Machine Learning using Remote Sensing for Building Agriculture Solutions by NASA Applied Remote Sensing Training Program- 2024
7. AGU Ocean Science Meeting-2024
8. Certification- Using Python for Automation-2024
9. NASA PACE Applications workshop-2023
10. Fundamentals of Machine Learning for Earth Science-2023
11. Google Data Analytics Certificate, Google,2023
12. PRIMER 7: Multivariate Analysis in Ecology & Other Sciences-2022
13. Geographic Information Systems (GIS) Specialization- 2022
14. Applied Data Science with Python Specialization, Coursera- 2022
15. Machine Learning A-Z™: Hands-On Python & R in Data Science, Udemy- 2020
16. Python for Data Science and Machine Learning Bootcamp, Udemy- 2020
17. Statistics for Data Science and Business Analysis, Udemy- 2020
18. TensorFlow Developer Certificate in 2022: Zero to Mastery, Udemy- 2020
19. Big Data Analytics with GIS, Udemy- 2020
20. ArcGIS Desktop for Spatial Analysis: Go from Basic to Pro, Udemy- 2020
21. Object-based Image Analysis & Classification in QGIS ArcGIS, Udemy- 2020
22. Complete Basic GIS Tasks - ArcGIS - Erdas - Remote Sensing, Udemy- 2020
23. Taming Big Data with Apache Spark and Python - Hands-On! Udemy- 2020
24. Pyspark & AWS: Master Big Data with Pyspark and AWS, Udemy- 2020
25. "SDGs for Youth: My Goal, My Responsibility" by EMK Center, Dhaka-2019
26. "Climate Change in Practice and becoming global citizens for a sustainable society" by the Asian pacific center of Education for international understanding and Ban Ki-moon center-2020.
27. Geospatial and Environmental Analysis by University of California, Davis -2020
28. Julia Scientific Programming by University of Cape Town -2020
29. Introduction to GIS: Manipulating and Mapping Geospatial Data in R -2020
30. Learned Advanced Python Concepts -2020
31. R programming hands-on specialization for Data Science -2020
32. Become an expert with ESRI's GIS software ArcGIS Desktop -2020
33. Machine Learning Bootcamp™: Hand-On Python in Data Science -2020
34. Ecology: Ecosystem Dynamics and Conservation -2020
35. Large Marine Ecosystems: Assessment and Management -2020
36. Data Analysis with Python -2020
37. R Programming -2020
38. ARSET - Species Distribution Modeling with Remote Sensing-2020
39. Preparing to Manage Human Resources -2020
40. Geospatial Applications for Disaster Risk Management" -2020
41. Fishery Oceanography for Future Professionals by ESSO-INCOIS, India-2020
42. Participation in "Social Leadership Hackathon" -2019
43. Training on "First Aid" in American Corner, Chittagong, Bangladesh-2019

44. Training on "Geospatial Regression and Hotspot analysis" at the University of Dhaka, Bangladesh-2018
45. Training on Volunteerism -2015, Chittagong, Bangladesh.
46. Workshops on the "Blue Economy"- 2015.

ACADEMIC REFERENCES

Felix Jose, PhD
Email: fjose@fgcu.edu
Associate professor
Department of Marine & Earth Science
Florida Gulf Coast University, Florida

Corey Dunn, PhD
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U.S. Geological Survey
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North Carolina State University

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