

Charles “CJ” Knoble II

Dept. of Earth & Environmental Studies
Montclair State University

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EDUCATION

Montclair State University	May 2025
Doctor of Philosophy , Environmental Science and Management	GPA 3.97
California State University, Chico	May 2019
Bachelor of the Arts , International Relations	GPA 3.69
Minors , Political Science, Italian, and International Studies	
Università degli Studi di Torino, Italy	January 2018 - May 2018
Study Abroad and Red Cross Volunteer	

RESEARCH INTERESTS

- Environmental Justice
- Environmental Policy
- Big Data
- Just Sustainabilities
- Geospatial statistics
- Critical GIS

PEER REVIEWED PUBLICATIONS

Yu, D., **Knoble, C.**, Whyte, K., Lal, P., Borgerson, C. (n.d.). Environmental Justice in Indigenous Communities: The Disproportionate Effects of Environmental Contamination. *[In Review]*

Fabolude, G., **Knoble, C.**, Vu, A., Yu, D. (n.d.). Smart Cities, Smart Systems: A Comprehensive Review of System Dynamics Model in Urban Studies in the Big Data Era. *[In Review]*

Knoble C., Fabolude, G., Vu, A., Yu, D. (n.d.). From Crisis to Prevention: Mining Big Data for Public Health Insights During the Flint Water Crisis. *[In Review]*

Chien, S.-C., & **Knoble, C.** (2024). Research of Education for Sustainable Development: Understanding New Emerging Trends and Issues after SDG 4. *Journal of Sustainability Research*, 6(1), e240006, Article e240006. <https://doi.org/10.20900/jsr20240006>

Chien, S.-C., **Knoble, C.**, & Krumins, J. (2024). Human population density and blue carbon stocks in mangroves soils. 19(3). <https://doi.org/10.1088/1748-9326/ad13b6>

Knoble, C., & Yu, D. (2023). Bridging the Gap: Analyzing the Relationship between Environmental Justice Awareness on Twitter and Socio-Environmental Factors Using Remote Sensing and Big Data. *Remote Sensing*, 15(23), 5510. <https://www.mdpi.com/2072-4292/15/23/5510>

Knoble, C., & Yu, D. (2023). Environmental justice: An evolving concept in a dynamic era. *Sustainable Development*, 31(4), 2091-2108. <https://doi.org/https://doi.org/10.1002/sd.2519>

ADDITIONAL RESEARCH EXPERIENCE

California's Sea Level Rise Policies , Internship	January 2019 – May 2019
California Department of Conservation	
<ul style="list-style-type: none">• Assisted Chief Science Advisor by collecting and analyzing emerging academic research and policy initiatives addressing sea level rise in the United States• Synthesized trends and findings in recent research and presented to internal and external stakeholders at quarterly science briefing	

International Policy Papers, Model United Nations
California State University, Chico

August 2016 – April 2019

- Analyzed various UN member states' policies to infer their response to international crises and submitted written policy briefs to international conferences, winning 3 awards for writing excellence
- Led 20+ undergraduate students in researching and writing policy briefs to international conference, winning 15 awards for writing excellence

“Foreign Aid – Bridges and Barriers”, Capstone Paper
California State University, Chico

August 2018 – December 2018

- Conducted case studies on the American Red Cross and USAID response to 2010 Haitian earthquake
- Reviewed literature assessing the overall effectiveness of international humanitarian aid
- Analyzed both quantitative and qualitative data published by aid organizations and academic journals, identifying significant gaps in intended and manifested recovery efforts

“Assessing Impacts at the Alcohol Drug and Education Center”, Research Methods
California State University, Chico

December 2016

- Developed in-depth literature review on ethnographic research techniques, particularly in community outreach settings
- Collected ethnographic field data through small group sessions and individual interviews

TEACHING AND LEADERSHIP EXPERIENCE

GIS Analyst, Freelance

July 2022 – Present

Past clients include: Port of New York and New Jersey, City of Los Angeles, Urban SDK, autosense AG, Port of Los Angeles and Long Beach, Center for Sustainable Energy, and others

- Demonstrate project management skills by identifying scope, tracking progress, and achieving client goals within a given timeframe and budget
- Engage in database management by acquiring, processing, and maintaining spatial and non-spatial datasets inside and out of GIS software
- Complete and automate geospatial analyses for tens to thousands of datasets using GIS software, Python, R and Esri Model Builder
- Create compelling visualizations and maps, both static and interactive, to effectively communicate trends and patterns derived from complex geospatial datasets

Adjunct Professor, Department of Earth and Environmental Science
Montclair State University

January 2024 – Present

Introduction to GIS and Remote Sensing (EAES 210/506)

- Responsible for developing curriculum, designing labs, and leading lectures for Introductory GIS course consisting of 20+ undergraduate and graduate students
- Create course syllabus incorporating engaging in-class activities and real world spatial analysis exams
- Instruct teaching assistant on guiding, aiding, and grading graduate and undergraduate student performance

Graduate Instructor, Department of Earth and Environmental Science
Montclair State University

August 2021 – December 2023

Introduction to GIS and Remote Sensing (EAES 210/506)

Advanced GIS and Remote Sensing (EAES 310/510)

Planet Earth (EAES 101), Research Methods in Sustainability Science (EAES 390)

- Led lab sections consisting of hands-on practice with software including ArcGIS Pro, QGIS software, Google Earth Pro, and R
- Assisted students in step-by-step labs, conceptual exams, and real-world spatial and statistical analyses in both in-person and online settings
- Corrected homework and guided students through statistical analyses of environmental and human health datasets

- Awarded “Outstanding Teaching Assistant” first year in the role for guiding students with compassion and enthusiasm

Clean Cities Coordinator; Project Manager

April 2020 – August 2021

Center for Sustainable Energy

- Developed and implemented outreach efforts for fleet electrification by organizing webinars with industry leaders, drafting monthly email campaigns, and engaging in one-on-one consultations
- Coordinated monthly fleet electrification training sessions, environmental policy newsletter distributions, and sustainability transition resource updates for 60 partner organizations
- Planned, developed, and enacted internal assessment of outreach effectiveness through cross-department collaboration research study

Assistant Manager

June 2019 – April 2020

Temple Coffee Roasters

- Demonstrated leadership skills as shift lead by developing and maintaining best practices among team, testing employees on company policies and products, and training incoming employees
- Maintained company policies and standards while responding to complex customer requests in a fast-paced environment
- Inherited responsibilities of manager when store managers were off duty

Student Teacher, Model United Nations

August 2016 – April 2019

California State University, Chico; POLS 340A/B

- Developed lesson plans, assignments, exams and lecture slides each semester
- Independent of course professor, lectured 30+ person class on debate rhetoric and research methods once a week
- Assessed and guided students on research methods, policy brief writing techniques, and public speaking in a debate environment

Red Cross Volunteer, Italian Red Cross, Beinasco

January 2018 - May 2018

- Translated emergency response documents from Italian to English and vice-versa
- Passed basic medical, history, and law exams required by the Italian Red Cross
- Performed all written and verbal tasks in Italian

Finance Chair, Phi Delta Theta Fraternity, CSU Chico

January 2017 - December 2017

- Established and maintained a five-figure annual budget for a non-profit organization with dues structure
- Implemented savings and collection policies that increased end-of-period balance by 200%
- Organized fundraising events with local businesses on a monthly basis

Resident Advisor, University Housing, CSU Chico

August 2016 - May 2017

- Developed, coordinated, and hosted engaging educational programs for up to one hundred students on a monthly basis
- Held 35 residents accountable for housing policies and responded to physical and mental health emergencies on an on-call basis
- Connected non-traditional students to university resources to encourage community building and academic success in the face of adversity, receiving Community Engagement award

PRESENTATIONS

Don't Let Lead Lead on Environmental Justice: Developing a Dynamic System Level Injustice Detection Tool in Newark, NJ

May 2024

Clean Energy and Sustainability Analytics Center Annual Summit

Charles Noble

- Research poster presentation session hosted by the Clean Energy and Sustainability Analytics Center
- Presented poster on the development of a simulative tool for detecting lead using environmental, socioeconomic, and big data sources

Don't Let Lead Lead on Environmental Justice: Developing a Dynamic System Level Injustice Detection Tool in Newark, NJ

April 2024

Montclair State University, Student Research Symposium

Charles Knoble

- Research poster presentation session hosted by Montclair State University
- Presented poster on the development of a simulative tool for detecting lead using environmental, socioeconomic, and big data sources

A System Dynamics Simulative Approach to Lead Remediation in the Era of Big Data

April 2024

American Association of Geographers, Annual Meeting 2024

Charles Knoble

- Paper presentation for the session, GeoAI and Deep Learning Symposium – Responsible GeoAI II: Justice and Accuracy
- Presentation discussed ongoing research on the development of a system dynamics simulative tool for lead detection with environmental justice considerations

Workshop: Practicing Critical GIS in the Era of Big Data and AI

March 2024

University of California Davis, maptimeDavis Group

Charles Knoble

- Developed and led two-hour hybrid workshop for 20 in-person and online attendees
- Engaged attendees with Critical GIS publications and Big Data environmental research
- Conducted hands-on demonstration using ArcGIS Online to analyze and assess big data

Geographic Information Systems Day

November 2023

Montclair State University, GIS Professionals Presentations

Charles Knoble, Nicholas D'Ambrosio, Amy Ferdinand, Rolihlahla Ferdinand

- Public presentations from a group of public, private, and academic GIS professionals on the application of GIS in different fields
- Provided 30-minute presentation on the basics of GIS and the importance of integrating Critical GIS

"Environmental Justice in New Jersey: An Exploration of Twitter as an Early Detection Tool"

April 2023

Montclair State University, Student Research Symposium

Charles Knoble

- Research poster presentation session hosted by Montclair State University
- Presented poster on results derived from big data integration investigation for environmental justice

A Big Data Exploration of Injustice: Twitter Data and Environmental Justice in New Jersey

March 2023

American Association of Geographers, Annual Meeting 2023

Charles Knoble

- Paper presentation for Symposium on Harnessing the Geospatial Data Revolution for Sustainability Solutions: Data-intensive and Computational Geography
- Presentation discussed research on the integration of social media and remote sensing big data into environmental injustice detection

Trends in Modern Environmental Justice Studies: A Review of the Techniques, Methodologies, and Findings

April 2022

Sigma Xi Student Research Symposium

Charles Knoble

- Environmental science symposium hosted by Montclair State University
- Informational presentation discussing recent trends in environmental justice research publications

Guide to Fleet Electrification

October 2020

Center for Sustainable Energy

Tim Mensalvas, Rick Teebay, **Charles Knoble**, Bridget Tighe

- Instructional webinar addressing fleet electrification mandates and policies

- Presented on pressing California mandates and addressed potential upcoming policy shifts

Busting Down Barriers to Install EV Infrastructure

September 2020

Southern California Clean Cities Coalition

Aaron Young, Lianna Rios, Susan Freedman, Rick Teebay, Adrian Gomez, Lisa McGhee, Kash Sethi, Greg Gustafson, Tim Mensalvas, **Charles Knoble**

- Roundtable discussion on key considerations for businesses looking to electrify their fleet
- Spoke on developments in electric vehicle and EV infrastructure mandates associated with fleets

Free Speech on Campus

April 2019

California State University, Chico

Allan Gibson, Michael Coyle, **Charles Knoble**, Kelsey McCaffrey

- Roundtable discussion between Behavioral Science department and select students on free speech
- Spoke alongside three other students on experiences with free speech on campus

PROFESSIONAL DEVELOPMENT

Spatial Data Science Bootcamp

February 2024

Carto, <https://spatial-data-science-conference.com/bootcamps/2023/newyork>

- Attended intensive course designed for Data Science and Analytics professionals in both the private and public sectors to further their understanding of current trends in spatial data science
- Gained experience with unique GIS tools, python for geographic analyses, and novel big geographic data management software packages

Summer 2024 Graduate Student Teaching Workshop

July 2023

Montclair State University, Office of Faculty Excellence

- Two-day workshop designed to help graduate students design and implement courses
- Discussed methods for addressing the prevalence of generative AI in universities, designing a clear and engaging syllabus, and maintaining student engagement throughout the semester

The Second National Conference: Justice in Geoscience

August 2022

American Geophysical Union, Chapman Conference

- Four-day conference on improving diversity, equity, and inclusion in geoscience
- Participated in writing workshops, reading sessions, engaging discussions, and artistic workshops intended to foster collaboration around the subject of justice in geoscience
- Culminated in the publication of the 2072 Report, outlining a roadmap for advancing diversity, equity, and inclusion over the next 50 years

Summer 2022 Graduate Student Teaching Workshop

May 2022

Montclair State University, Office of Faculty Excellence

- Two-day workshop designed to help graduate students design and implement courses
- Discussed backward design, beneficial tools, embracing diversity in pedagogical practices, and active learning strategies

AWARDS AND HONORS

Outstanding Teaching Assistant, Academic Year 2021-2022

May 2022

Montclair State University

Graduation with Highest Distinction in the Major

May 2019

California State University, Chico

Dean's List [Every Semester]

August 2015 – May 2019

California State University, Chico

Policy Position Paper Award, National Model United Nations Conference

April 2017, April 2019

New York, NY

Outstanding Delegate Award, National Model United Nations Conference
Washington D.C.

October 2018

Policy Position Paper Award, National Model United Nations Conference
Washington D.C.

October 2017, October 2018

“Rookie” of the Year Award, University Housing
California State University, Chico

May 2017

Community Development Award, University Housing
California State University, Chico

May 2017

Outstanding Delegate Award, Northwestern Model United Nations Conference
Seattle, WA

November 2016

Policy Position Paper Award, Northwestern Model United Nations Conference
Seattle, WA

November 2016