

ANDRE DEXTRE

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EDUCATION

Master of Environmental Data Science (June 2023)

Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)

Relevant Coursework: Geospatial Analysis & Remote Sensing, Data Management & Visualization, Modeling Environmental Systems

Bachelor of Arts in Environmental Studies (June 2021)

University of California, Santa Barbara (UCSB)

Relevant Coursework: Water Supply & Demand, Water Management, Water Data, Water Policy
Concentrations: Water Resource Management, Geographic Information Systems (GIS)

MASTER'S CAPSTONE PROJECT

Assessing Wildfire Risk in Groundwater Dependent Ecosystems (1/23-6/23)

Project Manager | Client: Kelly Easterday, The Nature Conservancy (TNC)

- Led a comprehensive analysis, utilizing R and Python, of the critical interaction between groundwater ecosystems and wildfires across California's diverse terrain, for resource management efforts.
- Drafted a comprehensive project proposal and technical documentation, outlining methods and goals.
- Facilitated strategic engagements with stakeholders, including land managers, ensuring deliverables aligned with conservation goals and objectives of the Dangermond Preserve.
- Optimized data management and analytical efficiency by leveraging open-source repositories and APIs containing geo-datasets with over 20,000 rows of topography, wildfire, and water data.
- Engineered an R-Shiny dashboard, displaying an interactive map of California allowing stakeholders to explore data visually and dynamically, influencing conservation efforts at the Dangermond Preserve.

WATER & DATA EXPERIENCE

Water Research Intern, Jasechko Research Lab (1/21–9/23)

University of California, Santa Barbara (UCSB) - Santa Barbara, CA

- Spearheaded the integration and management of extensive geo-datasets, utilizing ArcGIS Pro, R, and SQL, enhancing research accuracy in hydrological studies within the Dangermond Preserve.
- Transformed over 5,000 manual data files into shapefiles, mapping out global aquifer systems in ArcGIS.
- Oversaw the weekly to daily collection of groundwater samples and measurements, implemented advanced sampling methods, and applied QA/QC protocols for data integrity.
- Developed and mapped over 40 groundwater well sites in ArcGIS, improving field navigation and data collection efficiency at the Dangermond Preserve by 50%.

Water Data Research Project (10/20–3/21)

University of California, Santa Barbara (UCSB) – Santa Barbara, CA

- Led a comprehensive analysis of USGS water-use data from 1950-2015, using R, formatting big data into specific demand sectors to provide a comprehensive overview of water consumption trends.
- Created high-level data visualizations, illustrating water demand and supply trends in CA, influencing policy discussion on sustainable water practices under the SGMA framework.
- Conducted an analysis of the overly drafted basins under SGMA, focusing on socio-economic implications.
- Utilized big data to developed and interactive map of the US, using Leaflet, quantifying water withdrawals in each state by demand sectors.

ADDITIONAL SKILLS & LANGUAGES

Technical Skills: Esri ArcGIS Pro, Python, R, MS Office, QA/QC, SGMA, SQL, AWS, Modeling

Soft Skills: Interpersonal Skills, Communications, Adaptability, Collaboration, Leadership

Languages: English (Fluent), Spanish (Fluent)