

Josephine M. Cardelle

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[GitHub](#) | [LinkedIn](#)

EDUCATION

Master of Environmental Data Science (expected June 2025)

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

Highlighted Coursework: Python for Environmental Data Science, Geospatial Analysis and Remote Sensing, Machine Learning in Environmental Science, Modeling Environmental Systems, Data Visualization and Communication (all to be completed by June 2025)

Involvement: Environmental Justice Club, Mentor for Bren-Environmental Studies Fellows Program

Bachelor of Engineering in Civil Engineering (May 2021)

McGill University, Montreal, QC

Honors/Awards: National Merit Hispanic Scholar

Involvement: Engineers Without Borders, Sustainability in Engineering at McGill, Bridge Building Team

TECHNICAL SKILLS

Programming: R, Python, SQL, Bash, Git/GitHub, Familiar with ArcGIS

Computer: AutoCAD, Microsoft Excel, Microsoft Suite, Canva

EXPERIENCE

Civil/Agricultural Engineer (GS 9) (1/22-4/24)

USDA – Natural Resources Conservation Service (NRCS), Commonwealth of the Northern Mariana Islands

- Coordinated the planning, design, and construction of conservation practices needing engineering assistance such as water management, animal waste management, erosion control, irrigation systems, and more
- Directed site investigations, feasibility studies, and field construction checks.
- Provided technical guidance for all engineering practices and the use of engineering equipment including leading topographic site surveys
- Lead pre-construction meetings between contractor and client to define construction schedule and ensure compliance

Engineering Undergraduate Researcher (5/19-8/19)

McGill University – Environmental Geomechanics Laboratory, Montreal, QC

- Analyzed the suitability of Lac du Bonnet Granite to serve as a deep geological repository for nuclear by product under the supervision of Dr. A.P.S. Selvadurai
- Mastered the use of an X-ray diffraction machine to determine mineralogical composition and taught the proper use of the machine to the other researchers in the laboratory
- Provided research support for the paper *Estimate for the Effective Permeability of Intact Granite Obtained from the Eastern and Western Flanks of the Canadian Shield* (Selvadurai et al., 2020)
- Presented a research poster at the Summer Undergraduate Research in Engineering (SURE) Design Day
- Wrote a literature review on Lac du Bonnet Granite

Conservation Corps Member (7/21-10/21)

AmeriCorps – American Conservation Experience, Hurricane, Utah

- Implemented conservation projects in public lands such as Zion National Park, Bryce Canyon National Park, and Leavenworth National Fish Hatchery
- Participated in projects such as forest fire fuels reduction, invasive species removal, train maintenance and construction, and cattle exclusion fencing construction
- Collaborated with federal employees such as the Zion NP Fire Management Crew and Vegetation Crew

ADDITIONAL EXPERIENCE

Conservationist – Operation Groundswell, Tanzania & Rwanda (5/18-7/18)

Collaborated on conservation and community centered projects with local NGOs including The Jane Goodall Institute, Rau ECO, Rwanda Environmental Conservation Organization, and more

Social Media Manager and Volunteer – Worms Waste Not, Oneonta, NY (5/24-present)

Manage the social media of the organic waste hauling business and volunteered on waste pickup days

CERTIFICATIONS & LANGUAGES

Certifications/Trainings: NRCS Level I Certified Conservation Planner, Certified Comprehensive Nutrient Management Planner, California Polytechnic State University Designer/Manager School of Irrigation Training

Languages: Proficient Spanish