VRUNDA TOL

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EDUCATION

Master of Environmental Science and Management (Expected June 2025)
Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)
Specializations: Business and Sustainability, Energy and Climate
Sustainability Leadership: Career Development Officer, Net Impact; Board Member, Bren Energy Club
Highlighted Coursework: Energy Technology; Life Cycle Assessment (LCA); Environmental Modeling; Carbon Accounting; Cost Benefit Analysis; Advanced Data Analysis; Environmental Justice

Master of Science in Chemistry (June 2019)
Bachelor of Engineering in Electrical & Electronics Engineering (June 2019)
Birla Institute of Technology and Science, Pilani (BITS-Pilani), Pilani, India
Fellowship: INSPIRE from Department of Science and Technology, Govt. of India

MASTER'S GROUP PROJECT EXPERIENCE

Understanding water and energy tradeoffs for data center cooling in California (04/24–Present)
Client: Equinix | Role: Data Manager | Deliverables: Dashboard, Report, and Presentation

- Conducted a literature review on the Energy-Water Nexus of California with 3 team members.
- Developed a methodology to quantify the upstream indirect water and energy consumption.
- Recommend data-based decisions to the client to optimize energy and water use.

PROFESSIONAL EXPERIENCE

Circulor Inc., Remote (06/24–09/24)
Customer Implementation Intern | Clients: Tesla & Elemental Advanced Materials

- Implemented client's digital product passports, material traceability maps, and carbon emissions tracking.
- Consulted Tesla's Battery Supply Chain team on decarbonization strategies based on 22 supplier reports.
- Drafted RFPs for EV battery suppliers, miners, and recyclers to comply with EU battery regulations.
- Proposed strategic expansion plan in the semiconductor industry to support upcoming U.S. policies.

Intel, Bangalore, India (07/18–08/23)
Structural Design Engineer (07/19–08/23)

- Collaborated across teams to achieve high-frequency targets for 4 GPUs on 7nm & 5nm Silicon with exhaustive Static Timing Analysis in all semiconductor design and production stages.
- Explored energy efficiency and circularity innovations at the Intel India Sustainability Lab.

Graduate Technical Intern (07/18–06/19)

- Evaluated delay correlation between Synopsys design construction tool and timing sign-off tool to ensure early detection and fixing of 80% of violations in the design using statistical on-chip variation.

ADDITIONAL MASTER'S PROJECT EXPERIENCE

- **GHG Emission Calculations and Recommendations for Toad&Co (10/24–12/24).**
- **Cost-Benefit Analysis of a Nuclear Small Modular Reactor for a Data Center (10/24–12/24).**
- **Life Cycle Analysis of Aluminum Cans, exploring two end-of-life scenarios (01/24–03/24).**
- **Business Models for Solar Panel E-Waste Management (10/23–12/23).**

SKILLS, TRAINING, & CONFERENCES

Technical: R, Perl, Java, MATLAB, C, Shell, GaBi, Microsoft Office, Excel, Synopsys VLSI, WRI Aqueduct
Training: GHG Corporate Standard Training (2023), TCFD Intro. to Climate-Related Financial Disclosures (2023)
Conferences: VERGE, Oct 2024; SEMICON West, Aug 2024; Battery Brunch – Volta Foundation, Feb 2024