

Ranjani Theregowda

DATA SCIENTIST

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egowda

EXPERIENCE

Senior Analyst - Contract | Moorland Technologies

Feb 2020 - Present, VANCOUVER, BC

- Drafted project proposal to reduce bid costs for an annual project worth \$200k that - *Evaluated the Costs and Benefits of Implementing the Canada Ontario Lake Erie Action Plan*
- Conducted 50% of the technical analysis, communicating with client, proposal drafting, engagement administration.

NAS/NRC Research Associate | U.S. Environmental Protection Agency (USEPA)

Apr 2017 - Mar 2019, CINCINNATI, OH

- Worked on process and product sustainability analysis via emergy accounting and comparison that indicated one order of magnitude higher specific emergy in 1 unit of traditional phosphorus fertilizer than that of a recovered fertilizer
- Proficiently analyzed and interpreted agricultural watershed data to estimate emergy conserved with the recovery and use of struvite.

Visiting Postdoctoral Scholar | Clemson University

Feb 2016 - Mar 2017, CLEMSON, SC

- Published a manuscript that evaluated a tire's use phase emergy that accounts for approximately 86% of its life cycle emergy consumption. Project completed for -Cooper Tire & Rubber Company.
- Effectively performed literature evaluation of biofuel expansion on national estuaries by collecting eutrophication potential (EP) data

Environmental Data Analyst | Transtech Engineering Consultants, Inc.

Mar 2013 - Feb 2015, COLUMBIA, MD

- Worked as a team lead in 50% of the projects that dealt with collection and analysis raw data for safety analysis of traffic and environmental infrastructure.
- Excelled at preparing project bids for a Small Business Enterprise (SBE) as a sub-contractor for the inspection of civil infrastructure.

SKILLS

Databases: MySQL

Programming: Python, R

Statistics: Hypothesis Testing, A/B tests, Regression

Data Visualization: Tableau, Matplotlib, Plotly, Bokeh, Seaborn

Neural Networks: Tensorflow, Keras, Pytorch

Big Data: AWS, Hadoop, Spark, Hive

Machine Learning: Supervised and Unsupervised Learning

Sustainability: LCA Analysis Open-LCA, EIO-LCA, Auto-CAD, Emergy Analysis

Engineering: Century (SOM), Hydraulic and Water Quality System (HAWQS), Environmental Field Sampling

PROFILE

My passion is to help build a sustainable environment by increasing intelligence of cities via informed decisions made using data science. I believe that technology and big data can be used to bring about a paradigm shift at a global level.

Graduate Research Assistant and Scholar | Carnegie Mellon University

Sep 2009 – Mar 2013, PITTSBURGH, PA

- Evaluated of tertiary wastewater treatment that discovered average air emissions of impact costs to be between 5 - 8% of the total costs using process-based and economic I/O Life-Cycle Assessment (LCA) databases.
- Developed an Excel based conceptual design and cost estimation tool (LC3 model) for wastewater systems that projected possible costs for reusing treated waters.

EDUCATION

BrainStation | Diploma Candidate, Data Science

Jun 2020 - Sep 2020, VANCOUVER, BC

Carnegie Mellon University | PhD Environmental Engineering Science

Sep 2009 – Aug 2012, PITTSBURGH, PA

Carnegie Institute of Technology Dean's Fellowship

Sep 2009, Dept. of Civil and Environmental Engineering, Carnegie Mellon University

PROJECTS

Data Science Capstone | Student | BrainStation

JUN 2020 – SEP 2020

Estimation of environmental cost of clear-out logging by accounting for the greenhouse gas emissions that are undermined

Data Science Class Projects | Student | BrainStation

JUN 2020 – SEP 2020

- **Bixi Project - Data Analysis in SQL and Visual Analytics in Tableau**

Understand what factors influence the volume of usage, popular stations and overall business growth using SQL to dig into the Bixi Bikes dataset and created data visualizations using Tableau, allowing the user to interactively derive business insights for Bixi dataset.

- **Stats and Politics – Cleaning, EDA and Data Analysis**

Performing EDA and Data analysis for analyzing data from previous United States presidential elections.

- **NLP With Hotel Review – EDA, Data Wrangling and Modelling**

Develop several machine learning models to correctly label the sentiment behind hotel reviews.

HONORS

Research Fellowship

Apr 2017 – Mar 2019

National Research Council and The National Academies of Sciences, Medical and Engineering-, U.S. EPA, Office of Research and Development, Cincinnati, OH.

Carnegie Institute of Technology

Dean's Fellowship

Aug 2009 – May 2010

Dept. of Civil and Environmental Engineering, Carnegie Mellon University, Pittsburgh, PA.