

Dhanuj Mount Gandikota

dhanujg@umich.edu | dhanujmg@gmail.com | 734 730 3226 | Ann Arbor, MI 48104

Personal Website/Portfolio: <https://dhanujg.github.io/>

LinkedIn: <https://www.linkedin.com/in/DhanujG/>

EDUCATION

The University of Michigan, Ann Arbor, MI

April 2021

B.S in [Data Science]; [Computer Science]; and [Ecology & Evolutionary Biology]

**3 Independent B.S. Degrees*

Courses Taken

Computational Data Science & Machine Learning (Graduate 500+),
Data Mining , Computer Vision , Intr. Machine Learning , Applied Regression Analysis, Autonomous Robotics, Software Engineering, Database Management Systems , Data Structures & Algorithms , Linear Algebra

EXPERIENCE

Machine Learning Engineer/ Data Scientist Co-Op

RXA: AI & BI Consulting

Jan 2021 – Present

Machine Learning Development Research

Computational Ecology, Evolution and Biology Lab

Jan 2020 – Present

- Encoded Density Clustering ML Model in R selected with DBCV analysis in Python to identify coexistence in competing species contradicting competitive exclusion with 92% confidence. Model architectures designed from ML research.
- Created R package in Python, C++ for Bio-Ecologists to structure trait data and perform Biological ML Clustering Analysis
- Operate as an interdisciplinary reference within lab to explain and analyze machine learning and data analysis research.

Project Director & Founder

Michigan Eco Data

Sep 2019 – Present

- Founded org for interdisciplinary exploration in data science, software engineering, and environmental conservation
- Execution of consumer product and effective executive board communication awarded organization 2000\$ biannual sponsorship from Michigan Institute of Data Science. Currently managing 4 project teams with 25+ active members.

Data Science Intern

GHD: Engineering, Architectural, and Environmental Consulting

June – August 2019

- Structured collected/ scraped ACRGIS in Python, C with facility data and performed regression and linear neural network analysis to determine optimal PFAS testing sites with reduction in operating costs.
- Created custom field forms and designed database architecture to pipeline response data into auto-populated EPA Audit Forms. Automation pipeline transformed field form collection data into 5000+ Audit cells previously filled manually.

Machine Learning & Computer Vision Research (*Primary Author of 2 Publications)

Michigan Medicine Computer Aided Diagnosis Lab

Jan 2017 – April 2019

- Implemented Back Propagated Neural Networks, LDA, SVM and RF models in C++ validated with ROC analysis to produce a bladder cancer classification accuracy of +80%. Executed Feature Extraction on Bladder CTU Scans to isolate key features
- Invited to and performed Poster (2018) and Oral (2019) Presentations in the National SPIE Conferences to other Researchers

INDEPENDENT PROJECTS

-More Projects also located on GitHub

Deep Learning to Estimate Forest Density from Drone Footage

- Standardized Aerial Forest Drone Images scraped from internet and extracted Density Maps and Forest Tree Segmentations
- Constructed a Neural Network in Python based on recent 2017 crowd CVPR research resulting in 80% prediction accuracy

Heatmap Visualization of Michigan Chemical Contamination for Core Consumer Product

- Structured 3,000,000+ Public EPA contamination data points to isolate Michigan Locations above Safety Levels
- Built a dynamic web dashboard of heatmap visualizations enabling users to visualize contamination values in their locality.

Machine Learning Analysis to Predict Countries Happiness through Non-Demographic data

- Scraped 130 countries geographic, political, and organizational data, structured with Time Series Forecasting in R, Python
- Developed suite of regression and classification models resulting in a ~90% prediction rate from variable selected data

TECHNICAL SKILLS

Programming Languages: (Proficient) - C++/C, Python [PyTorch, TensorFlow, NumPy, Pandas] , SQL , R , MATLAB
(Familiar) - Java , HTML , CSS , Cuda

Tools and Frameworks: Linux , Hadoop , Git , MS Azure -Machine Learning , AWS-Sagemaker, Tableau , Jupyter , SAP-HANA

EXTRACURRICULARS

DJs A Cappella - Member & Business Manager

Jan 2017- Present

- Placed 1st at ICCA Midwest Quarterfinal and personally awarded Outstanding Vocal Percussionist
- Implemented outreach techniques and initiation of new fundraising events to end with a 25% increase in revenue