Dhanuj Mount Gandikota

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EDUCATION

The University of Michigan | B.S. Computer Science — Expected May. 2021
The University of Michigan | B.S. Data Science — Expected May. 2021
The University of Michigan | B.S. Ecology & Evolutionary Biology — Expected May. 2021

- *Founder*, Michigan Eco Data ; *Business Manager*, DJs A Cappella ; *Member*, Michigan Climbing Club

Coursework (Upper-Level - 400+, 500+)

Computational Data Science & Machine Learning (Graduate) | Applied Machine Learning in Computing (Graduate) | Data Mining | Computer Vision | Machine Learning | Applied Regression Analysis | Software Development & Design | Database Systems

Domo Partner Certification: AI & BI Data Interface w/ AWS Sagemaker & Google Cloud AI Functionality

EXPERIENCE

RXA: AI & BI Consulting | Ann Arbor, MI — Jan. 2021 - Present
Applied Machine Learning Engineer/ Data Scientist Co-Op

- **Developed Gradient Boosted ML Model on custom dataflow** in DOMO [SQL, Python] structuring 60,000+ sales records optimizing client automotive acquisition for maximizing expected profit margin with 96% accuracy
- **Created API** [Python, Google Cloud API] to aggregate and structure ~4GB historic client sales CSV data from drive repository for 100+ files with full client encryption and recurring database updates saving ~30+ hrs. data entry
- **Implemented ML hierarchical clustering model** [Python, R, AWS Sagemaker] on client's insurance case data with AUROC of 0.88 thus identifying 7 key consumer risk factors potentially increasing policy profit margins 30%

Computational Ecology, Evolution and Biology Lab | University of Michigan — Jan 2020 - Present
Machine Learning Development Researcher

- **Published open-source R package** titled *weightedClustSuite* [R, C++, Python] for Machine Learning Density Clustering & Validation, used on weighted species abundance data enabling identification of species distribution clusters
- **Applied weighted Species Trait Data to 2014 ML Research** in Density Peak Clustering demonstrating contrary coexistence of similar niched species despite competitive exclusion with promising clustering validation (DBI: 0.56)

Michigan Eco Data | University of Michigan — Sep 2019 - Present
Product Director

- **Product Manager Execution of consumer heatmap awarded 2000$** sponsorship by *Michigan Institute of Data Science*
- **Built dynamic web dashboard software** of interactive Michigan Heatmaps [HTML, JS, Python] from 400,000+ Unstructured EPA data points for Michigan Residents to identify contaminants at high levels in their zip codes

GHD: Engineering, Architectural, and Environmental Consulting | Detroit, MI — June 2019 – August 2019
Data Science & Engineering Intern

- **Implemented Automation pipeline** [Python, FME] from custom field forms into my designed database [SQL] auto filling Client Audits resulting in an 80% reduction in manual data entry for Client EPA Facility Audits
- **Deployed ML: Random Forest & Regression Models** on structured ARCGIS data determining optimal PFAS site testing order for estimated 75% reduction in location sampling costs

Computer Aided Diagnosis Lab | Michigan Medicine — Jan 2017 – April 2019
Machine Learning & Computer Vision Researcher

- **Primary Author of 2 Publications**: Spoke at Poster (2018) and Podium (2019) Presentations in SPIE Conferences
- **Executed Feature Extraction w/ segmentation and built ML models**: BPNN, LDA, SVM, and RAF [C++] with 92% suite ROC Sens. Accuracy for accurate staging diagnosis of Bladder Cancer determining immediate treatment

PROJECTS

Deep Learning on Drone Footage Data to Estimate Forest Density for Wildfire Prevention

- Extracted Density Maps and Forest Tree Segmentations[MATLAB] from Standardized web scraped images
- Constructed Neural Network [Python: PyTorch, TensorFlow] with novel Perspective layer based on 2017 CVPR crowd counting research resulting in 80% prediction accuracy

Reinforcement Learning Object Detection in Coral Reef Image Data for Trash Identification

- Developed CNN [Python: Keras, PyTorch] based on 2019 Waste Classifier architecture with 83% Avg Accuracy
- Successfully implemented RL Object Detection schema from 2016 CVPR paper for creating Trash boundary boxes

SKILLS

Languages: C++/C, Python [PyTorch, TensorFlow, Keras, NumPy, Pandas], R, SQL, MATLAB, Java, HTML, Cuda
ML & Data Software: Jupyter, Tableau, Linux, Excel, AWS Sagemaker, DOMO, MS Azure, Hadoop, SAP- HANA