

SANIDHYA MANGAL

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Education

Vanderbilt University, Master of Science in Computer Science; 3.9/4.0 Fall 2021 – Present
Medi-Caps University, Bachelor of Technology in Computer Science; 8.4/10.0 Fall 2016 – Spring 2020

Technical Skills

Languages: Python, SQL, Bash
Tools: Scikit, TensorFlow, Keras, Django, Flask, PyTorch, Kubernetes, Docker, GIT
Platforms: Linux, Web, Accre, AWS, Google Cloud Platform, Microsoft Azure

Experience

Asurion **May 2022 – August 2022**
Data Science Intern Nashville, TN

- Developed a feature to nudge expert with rebuttal scripts in real-time during upsell in a call with 90% coverage.
- Explored ways to analyze business impact and performing opportunity sizing to gauge impact of the project.
- Trained Roberta model using adversarial strategy to induce robustness in text-classification with tiny dataset.
- Devised out of the box metrics to measure, compare & analyze performance of different machine learning models.

Engineerbabu **June 2020 – June 2021**
Machine Learning Engineer Indore, India

- Developed Convolution Neural Network backed system to perform prognosis of lung and colon cancer with 0.92 AUC.
- Lead a team improve & expose Rest-APIs to streamline models and ml-pipeline which reduced inference time by 30%.
- Designed & deployed a web framework for performing Edge AI ops for object tracking and generating analytical reports.
- Part of automation project to improvise workflow within organization to boost decision making process.

Publications

Automated filtering of genome-wide large deletions through an ensemble deep learning framework, *Methods* **August 2022**
LSTM vs. GRU vs. Bidirectional RNN for script generation, *arXiv* **August 2019**

Projects

SSLGAN | *Python, GAN, Self-Supervised Learning, Computer Vision, Generative Modelling* **April 2022**

- Inducing Rotational and Contrastive based self-supervised learning method to prevent forgetful discriminator in GAN and improve inception score for image generation.

PAC | *Domain Adaptation, Semi-Supervised Learning, Computer Vision* **December 2021**

- Juxtaposed different supervised and unsupervised representation learning methods on variation of semi-supervised and unsupervised domain adaptation.
- Augmentation of the paper "Surprisingly Simple Domain Adaption" on OfficeHome dataset for image classification.

GPPy | *Statistical Machine Learning, Python, JAX, Gaussian Process* **November 2021**

- Progressively worked on development of library for gaussian process regressor and classifier as a part of coursework.
- To scale computation variational and sparse techniques were also implemented.

Neural Machine Translation | *Natural Language Processing, Deep Learning* **October 2020**

- Shallow copy of GNMT to perform real-time translation from English to Hindi with BELU score of 14.

Leadership / Extracurricular

Amazon, Alexa Student Influencer **June 2019 – August 2020**
Part of first batch to lead chapter in central India to advocate for of voice over technology using Alexa skill kit.

Microsoft, Student Partner **January 2017 – August 2020**
Kick-started community in my university, organizing workshops, hackathons & events around cloud & ML tech.

Google, Explore ML Facilitator **June 2019 – March 2020**
Group leader in university to engage student developers towards deep learning ecosystem using TensorFlow.