Anamitra Musib

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SUMMARY

- Master of Data Science student aiming to architect Deep Learning applications to solve real-world problems
- Highly knowledgeable about high-scale system design, data science and SRE
- Aspire to be a Software Engineer skilled in Deep Learning and Site Reliability Engineering

EDUCATION

Master of Data Science December 2022
University of California, Irvine
GPA: 3.90 / 4.00

Bachelor of Technology in Computer Science and Engineering September 2020
Vellore Institute of Technology, Vellore, India
GPA: 9.02 / 10.00

TECHNICAL SKILLS

- Programming languages — Python, R, Java, C, C++, Golang, MATLAB, HTML, CSS
- Databases — MySQL, MariaDB, MongoDB, PostgreSQL, InfluxDB, Elasticsearch, SQLAlchemy, AWS DynamoDB, InfluxDB
- DevOps — Docker, Ansible, GitHub Actions, MLOps
- Data Science — Machine Learning, Deep Learning, Natural Language Processing (NLP), Computer Vision, scikit-learn, NLTK, TensorFlow, PyTorch, Data Analysis, Data Visualization, Keras, spaCy
- Monitoring — Grafana, Prometheus, Linux Command Line
- Large-scale system design, AWS Services, Shell Scripting

WORK EXPERIENCE

Newzera Tech Labs
Software Engineer August 2020 – May 2021

- Spearheaded various ML projects viz. *Timeline Generation using Semantic Modeling*, *Storyline Category Generation*, and *Text Classification with VGCN-BERT*
- Greatly improved source code of newspaper3k and news-please Python libraries, used in pivotal projects – *Archive Crawling* and *Real-Time Crawling*
- Designed a pipeline to generate an Event Timeline from a given Wikipedia page of an event
- Developed the Archive Crawling system, populated a library containing 20 million (and growing) news articles
- Built a fault-tolerant database architecture for the flagship Android application
- Mentored 10 Software Engineering interns in ML projects e.g. *Timeline Generation using Wikipedia*, and *Plagiarism Detection*

OpenGenus Foundation
Machine Learning Developer Intern August 2019 – October 2019

- Wrote 5 technical articles on Machine Learning and Deep Learning concepts (iq.opengenus.org/author/ana)
- Contributed code to open-source OpenGenus community on GitHub (github.com/OpenGenus/cosmos)

Reliance Jio Infocomm. Limited
Data Science Intern May 2019 – July 2019

- Assisted with operations of *"Automatic Tilt Optimization"* project
- Applied ML techniques (clustering and regression) on company data, created graphs for easy visualization of results, and reported outcomes to seniors

PROJECTS

- **Pest Classification using CNN and Transfer Learning**
  - Trained a CNN to classify images of tomato crops damaged by 3 kinds of pests
  - Improved performance of model by using Transfer Learning with 14 state-of-the-art pre-trained models such as *Inception_v3*, *ResNet50*, *Xception*, *VGG-19*, and *DenseNet121*
  - Deployed model to an Android application
- **Image to Image Translation using CycleGANs** (https://bit.ly/2JkfSxx)
  - Implemented the *pix2pix algorithm* using *CycleGAN* with *Keras*
- **Face Aging using Conditional GANs** (https://bit.ly/2HIJB30)
  - Developed a *Face Aging network* – takes an image of a person and generates an image of the same person older in age, using *Keras*
- **Generating realistic images using GANs and DCGANs** (https://bit.ly/3o2lk7g)
  - Trained GANs and Deep Convolutional GANs (DCGANs) on *MNIST* and *Fashion-MNIST* datasets, using *PyTorch*
  - Experimented with different hyper-parameters to train models than those used by authors in original research papers
  - Generated new example images for both datasets; demonstrated how the performance of DCGAN was better than GAN for the same task

TECHNICAL ARTICLES

- Deep Dive on YOLOv2 and YOLO9000 (bit.ly/3q63eU3)
- Playing with YOLOv1 on Google Colab (bit.ly/33ktyji)
- Curated resources to study Data Science (bit.ly/3l6PvZf)
- Face Aging using Conditional GANs with Keras implementation (bit.ly/2HIJB30)
- Image to Image Translation using CycleGANs with Keras implementation (bit.ly/2JkfSxx)
- Introduction to Q Learning and Reinforcement Learning (bit.ly/3q3bYKm)
- Deep Q-Learning: Combining Deep Learning and Q-Learning (bit.ly/3o04Tsh)
- Understanding Deep Convolutional GANs with a PyTorch implementation (bit.ly/3o2lk7g)

AWARDS

- **Special Achiever Award** (VIT, Vellore – September 2020)
  - Recognized as a "Special Achiever" during the 2019-2020 year on the basis of exemplary performance at various international events and in recognition of meritorious academic performance
- **AWS Summit Champion** (AWS – June 2020)
  - Achieved top rank in multiple competitions held in the AWS Summit Online, 2020
- **HackerTech '18** (VIT, Vellore – October 2018)
  - Won first prize, the created product was shortlisted for incubation by VIT Technology Business Incubator
- **Database Design and Implementation Hackathon** (VIT, Vellore – January 2018)
  - Awarded first rank for designing and coding a database architecture for an Air Traffic Control web application