



Gokul Karthik

COMPUTER VISION GRADUATE STUDENT @ MBZUAI · BTECH IN INFORMATION TECHNOLOGY
ARTIFICIAL INTELLIGENCE & COMPUTER VISION ENTHUSIAST · EXPLORING DIGITAL DEEP TECH ENTREPRENEURSHIP
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Education

MBZ University of Artificial Intelligence | MSc in Computer Vision

📍 Abu Dhabi, UAE

CGPA: - / 4

2021/Aug – 2023/May (Expected)

- Relevant Coursework: Human and Computer Vision, Machine Learning

Anna University | BTech in Information Technology

📍 TCE, Madurai, India

CGPA: 9.74 / 10; DEPARTMENT RANK: 1 / 130

2015/Jul – 2019/May

- Awarded Gold Medal of Excellence (Overall Best Outgoing Student) out of 1000+ graduating students in 2019 batch
- Relevant Coursework: Object Oriented Programming, Data Structures and Algorithms, Web Technologies, Data Base Management System, Software Engineering, Big Data, Data Mining

Experience

MBZ University of Artificial Intelligence | Computer Vision Research Assistant

📍 Abu Dhabi, UAE

MENTOR: DR. KARTHIK NANDAKUMAR

2021/Jan – 2021/Jul

- Developed a double encoder architecture for unsupervised adversarial classification

TCS Research & Innovation | Machine Learning Developer

📍 Chennai, India

MENTORS: DR. AVINASH ACHAR, DR. GIRISH PALSHIKAR; ACADEMIC COLLABORATOR: DR. BALARAMAN RAVINDRAN

2019/Apr – 2020/Nov

- Improved sales prediction models for the retails client using N-Gram models and Deep Neural Networks like RNNs and LSTM
- Implemented latest spatio-temporal travel time prediction models as baselines for evaluating temporal difference prediction models
- Developed intelligent employee profile retrieval system using text mining techniques
- Developed yield prediction model for hybrid corn crops to recommend effective crossing of species
- Developed computer vision pipelines to solve curved text extraction, perspective correction etc

IIT Madras / One Fourth Labs / AI4Bharat | Deep Learning Project Intern

📍 Chennai, India

MENTORS: DR. PRATYUSH KUMAR, DR. MITESH KHAPRA

2018/Dec – 2019/Mar

- Developed robust scene text recognition architecture for Indian languages
- Implemented Efficient and Accurate Scene Text Detector (EAST) for Indian signboard scene text detection
- Developed handwriting recognition system using Convolutional Recurrent Neural Networks
- Set up programming competitions for the PadhAI Deep Learning course

IIT Madras | Summer Research Fellow

📍 Chennai, India

MENTOR: DR. HARISH GURUPRASAD

2018/Jun – 2018/Jul

- Experimented Attention models' impact on neural networks

NPTEL | Teaching Assistant

📍 Online

COURSE INSTRUCTOR: DR. SUDARSHAN IYENGAR

2017/Dec – 2018/Mar

- Created programming assignments, handled the course forum and set up weekly quizzes for the 'Social Networks' course

IIT Ropar | Data Science Research Intern

📍 Ropar, India

MENTOR: DR. SUDARSHAN IYENGAR

2017/Dec – 2018/Jan

- Analyzed GitHub users' role and behaviour in building repositories

Skills

Technologies Deep Learning, Computer Vision, Text Mining, Data Science

Programming Python, C++, R, MySQL, \LaTeX

Python Packages PyTorch, Keras, Tensorflow, Scikit-Learn, OpenCV, NLTK, NetworkX, Numpy, Pandas, Matplotlib, Seaborn

Platforms Google Cloud Platform, Amazon Web Services, MS Excel, Tableau, QlikView

Software Frameworks Git, Streamlit, FastAPI, Flask, HTML, CSS, JS, Shiny, Android

Publications

Method And System For Forecasting Sales Based On N-Gram Model

GOKUL KARTHIK, AVINASH ACHAR, BALARAMAN RAVINDRAN; INDIAN PATENT APPLICATION E-1/52276/2020-MUM

Online

Oct-2020

Dynamic Bus Arrival Time Prediction: A Temporal Difference Learning Approach

VIGNESH LKP, AVINASH ACHAR, GOKUL KARTHIK; IJCNN - IEEE WCCI

Online

Jul-2020

Certifications

- 2021 **Generative Adversarial Networks (GANs) Specialization**, By Deeplearning.ai on Coursera
- 2020 **Futures Thinking Specialization**, By Institute for the Future on Coursera
- 2020 **Computer Vision Nanodegree**, By Udacity
- 2020 **Deep Learning Specialization**, By DeepLearning.ai on Coursera
- 2018 **Data Science Summer School**, By ACM and IIT Madras at Goa University
- 2018 **Data Analyst Career Track**, By DataCamp
- 2017 **Applied Data Science Specialization**, By University of Michigan on Coursera
- 2017 **Social Networks Course**, By IIT Madras on NPTEL (All India Rank 1)

Mini Projects

- 2020 **Indian Signboard Translation** - Detection, Classification & Recognition of Indian scene text.
- 2020 **Deep Learning Projects** - Baby Name Generation, Style Transfer, Image Segmentation etc.
- 2020 **Cryptocurrency Market Prediction** - Using Long- and Short-term Time-series network (LSTNet).
- 2018 **Qualitative Recommendation Engine** - Based on the mapping of user opinions to product features.
- 2017 **Twitter Analytics Dashboard of Topics** - Web app developed using Shiny
- 2017 **GitHub Social Network Analysis** - Exploration of data science repositories

Honors

- 2021 **Selected among the Top 10 teams** for the deep tech startup incubation program by Khalifa Innovation Center
- 2020 **Innovation Pride Award** by TCS for winning the Image Enrichment Challenge 2 out of 100+ participants
- 2020 **Winning Team Lead** of TCS DDS ML Hackathon out of 8 teams for developing the corn-hybrid recommendation system
- 2019 **Innovation Pride Award** by TCS for winning the MFDM AI Hackathon out of 100+ participants
- 2019 **Special Initiative Award** by TCS for the data driven solution to DDS profile hunt
- 2019 **Winning Team Lead** of IIT Madras AI Hackathon out of 500+ teams for developing safe route identification system
- 2019 **Gold Medal of Excellence** for the best outgoing student out of 1000+ students of TCE
- 2018 **Winning Team Lead** of Guvi-HCL AI Hackathon out of 30+ teams for developing the qualitative recommendation app
- 2017 **All India Rank 1** in the NPTEL course 'Social Networks'
- 2017 **Top 8** in the MHRD Smart India Hackathon out of Top 50 teams for the development of smart evaluation app
- 2017 **Winner** of TCE IT Association Hackathon out of 10+ teams for developing insurance review analytics tool
- 2016 **First place** in the TCE-IEEE Demo Task out of 30+ teams for developing IoT based waterbody overflow alert system

Volunteering

Anna University, Thiagarajar College of Engineering

📍 Madurai, India

AI WORK GROUP FOUNDER, ACM STUDENT CHAPTER CHAIR, NATIONAL SERVICE SCHEME MEMBER, ROTARACT CLUB MEMBER,
STUDENT REPRESENTATIVE, PLACEMENT REPRESENTATIVE, IT ASSOCIATION MEMBER,
CAMPUS AMBASSADOR FOR ANALYTICS VIDHYA, SHAASTRA & PRAGYAN

Jul-2015 - May-2019

Recreations

- Follow up** Indian Politics, Tech Entrepreneurship, Education
- Explore** Food Varieties, Coursera, Netflix, Social Media
- Physical Activity** Workout, Yoga, Badminton