



Gokul Karthik

ARTIFICIAL INTELLIGENCE & COMPUTER VISION ENTHUSIAST · EXPLORING DIGITAL DEEP TECH ENTREPRENEURSHIP
RESEARCH ASSISTANT @ MBZUAI · BTECH IN INFORMATION TECHNOLOGY

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Education

Anna University, Thiagarajar College of Engineering

📍 Madurai, India

BTECH IN INFORMATION TECHNOLOGY

2015/Jul - 2019/Apr

- Awarded **Gold Medal of Excellence - Overall Best Outgoing Student** of 2019 batch
- Coursework: Data Structures & Algorithms, Data Base Management System, Web Technologies, Probability & Statistics, Data Mining
- CGPA: 9.74 out of 10 (97.4%); **Department Rank: #1**; Grade: First Class with Distinction

Experience

MBZUAI | Research Assistant #DeepLearning #Computer Vision

📍 Abu Dhabi, UAE

MENTOR: DR. KARTHIK NANDAKUMAR

2021/Jan - Present

- Working on unsupervised and model agnostic identification of adversarial examples in computer vision

TCS Research & Innovation | Machine Learning Developer #MachineLearning

📍 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 LSTNet
- 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 | Project Intern #DeepLearning

📍 Chennai, India

MENTORS: DR. PRATYUSH KUMAR, DR. MITESH KHAPRA

2018/Dec - 2019/Mar

- Experienced energetic starting up with the founding team of One Fourth Labs
- 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 #MachineLearning

📍 Chennai, India

MENTOR: DR. HARISH GURUPRASAD

2018/Jun - 2018/Jul

- Experimented Attention models' impact on neural networks

NPTEL | Teaching Assistant #SocialNetworks

📍 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 | Research Intern #DataScience #NetworkScience

📍 Ropar, India

MENTOR: DR. SUDARSHAN IYENGAR

2017/Dec - 2018/Jan

- Analyzed GitHub users' role and behaviour in building repositories

Recent Skills

Technologies	Data Science, Machine Learning, Computer Vision, Text Mining
Programming	Python, R, TeX
Data Science Libraries	Numpy, Pandas, Matplotlib, Seaborn, NetworkX, NLTK, Scikit-Learn, Keras, PyTorch
Platforms	Google Cloud Platform, Amazon Web Services, MS Excel, Tableau, QlikView
Software Frameworks	Git, HTML, CSS, JS, MySQL

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

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

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)

Honors

- 2020 **Innovation Pride Award** for winning the Image Enrichment Challenge 2 by TCS
- 2020 **Winner** of TCS DDS ML hackathon for developing the corn-hybrid recommendation system
- 2019 **Innovation Pride Award** by TCS for winning the MFDM AI Hackathon
- 2019 **Special Initiative Award** by TCS for the data driven solution to DDS profile hunt
- 2019 **Winner** of IIT Madras AI Hackathon for developing the safe route identification system
- 2019 **Gold Medal of Excellence** for the best outgoing student of TCE
- 2018 **Winner** of Guvi-MithrAI-HCL AI Open Hackathon 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 for the development of smart evaluation app
- 2017 **Winner** of TCE IT Association Hackathon for developing insurance review analytics tool
- 2016 **First place** in the TCE-IEEE Demo Task 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