



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

Mohamed Bin Zayed University of Artificial Intelligence | MSc in Computer Vision

📍 Abu Dhabi, UAE

CGPA: - / 4

2021/Aug – 2023/May

- Member of SPRINT-AI (Security, Privacy and Trustworthiness in AI) Lab
- 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 with Gold Medal of Excellence - Overall Best Outgoing Student of 2019 batch
- Relevant Coursework: Object Oriented Programming, Data Structures and Algorithms, Web Technologies, Data Base Management System, Software Engineering, Big Data, Data Mining

Experience

Mohamed Bin Zayed University of Artificial Intelligence | 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 | 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 | Research Intern

📍 Ropar, India

MENTOR: DR. SUDARSHAN IYENGAR

2017/Dec – 2018/Jan

- Analyzed GitHub users' role and behaviour in building repositories

Skills

Technologies

Data Science, Machine Learning, Computer Vision, Text Mining

Programming

Python, C++, R, MySQL, LaTeX

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, 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

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

- 2021 **Selected** for the startup incubation program by khalifainnovation.ae
- 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