

# Gokul Karthik Kumar

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## EDUCATION

### MBZUAI

#### MSc COMPUTER VISION

📅 2023/May 📍 Abu Dhabi, UAE

🎓 CGPA: 3.9/4

- ➔ Machine Learning ➔ Computer Vision
- ➔ Geometry for Computer Vision
- ➔ Visual Object Detection & Recognition
- ➔ Trustworthy AI

### ANNA UNIVERSITY

#### BTECH INFORMATION TECHNOLOGY

📅 2019/May 📍 Madurai, India

🎓 CGPA: 9.7/10

- ➔ Object Oriented Programming
- ➔ Data Structures & Algorithms
- ➔ Web Technologies
- ➔ Database Management System
- ➔ Big Data ➔ Data Mining

## SKILLS

🔗 Python

🔗 Machine Learning

🔗 Computer Vision

🔗 Natural Language Processing

🔗 Speech Processing

🔗 Data Science

## CERTIFICATIONS

### UDACITY

🌟 Computer Vision Nanodegree

### COURSERA

- 🌟 GANs Specialization
- 🌟 Futures Thinking Specialization
- 🌟 Deep Learning Specialization
- 🌟 Applied Data Science Specialization

### NPTEL

🌟 Social Networks Course

### DATA CAMP

🌟 Data Analyst Career Track

## MINI PROJECTS

- 📁 Standard Deep Learning Projects
- 📁 Cryptocurrency Market Prediction
- 📁 GitHub Social Network Analysis

## EXPERIENCE

### MICROSOFT RESEARCH | MACHINE LEARNING RESEARCH INTERN

📅 2022/Jun - 2022/Aug

📍 Bengaluru, India

- ✓ Extensively evaluated the design choices for Text-To-Speech systems in Indian languages

### MBZUAI | MACHINE LEARNING RESEARCH ASSISTANT

📅 2021/Jan - 2021/Jul

📍 Abu Dhabi, UAE

- ✓ Improved unsupervised adversarial attack classification with double variational autoencoders

### TCS RESEARCH | MACHINE LEARNING DEVELOPER

📅 2019/Apr - 2020/Nov

📍 Chennai, India

- ✓ Improved retail sales forecasting using N-Gram models and Deep Neural Networks
- ✓ Implemented state-of-the-art spatio-temporal travel time prediction models
- ✓ Developed intelligent employee profile retrieval system using text mining techniques
- ✓ Developed computer vision pipeline to solve curved text extraction

### IIT MADRAS | MACHINE LEARNING PROJECT INTERN

📅 2018/Dec - 2019/Mar

📍 Chennai, India

- ✓ Developed scene text detection and recognition models for Indian languages
- ✓ Developed handwriting recognition system using CRNN for answer-script evaluation
- ✓ Set up programming competitions for the PadhAI Deep Learning course

## HONORS

2021 **Winning Team** in the ADAFSA agrithon for visual plant disease diagnosis

2021 **Finished second** in the GITEX x AI-everything High Flyer challenge

2021 **Selected** for the tech startup incubation program by Khalifa Innovation Center

2020 **Innovation Pride Award** by TCS for winning Image Enrichment Challenge

2019 **Winner** of TCS DDS ML Hackathon for corn-hybrid recommendation system

2019 **Special Initiative Award** by TCS for data driven solution to profile hunt

2019 **Winner** of IIT Madras AI Hackathon out of 500+ teams for safe route prediction

2019 **Gold Medal of Excellence** for the best outgoing student of TCE out of 1000+ students

2018 **Winner** of Guvi-HCL AI Hackathon for the qualitative recommendation application

2017 **All India rank 1** in the NPTEL course 'Social Networks'

## PUBLICATIONS

### Towards Building Text-To-Speech Systems for the Next Billion Users

📅 2022 🧑‍🤝‍🧑 Gokul Karthik Kumar\*, Praveen S V\*, and others

📍 Under Review at ICASSP

### Multimodal Meme Classification based on Cross-modal Interaction of CLIP features

📅 2022 🧑‍🤝‍🧑 Gokul Karthik Kumar, Karthik Nandakumar

📍 EMNLP Workshop

### Multilingual Contrastive Training for Question-Answering in Low-resource Languages

📅 2022 🧑‍🤝‍🧑 Gokul Karthik Kumar, and others

📍 ACL Workshop

### Study of Self-supervised Learning Approaches For Object Detection With Transformers

📅 2022 🧑‍🤝‍🧑 Gokul Karthik Kumar, Sahal Shaji Mullappilly, Abhishek Singh Gehlot

📍 ArXiv

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

📅 2021 🧑‍🤝‍🧑 Gokul Karthik, Avinash Achar, Balaraman Ravindran

📍 US Patent

### Dynamic Bus Arrival Time Prediction: A Temporal Difference Learning Approach

📅 2020 🧑‍🤝‍🧑 Vignesh LKP, Avinash Achar, Gokul Karthik

📍 IJCNN