



Gokul Karthik

ARTIFICIAL INTELLIGENCE & COMPUTER VISION ENTHUSIAST · EXPLORING DIGITAL DEEP TECH ENTREPRENEURSHIP
MACHINE LEARNING DEVELOPER @ TCS RESEARCH & INNOVATION · BTech IN INFORMATION TECHNOLOGY

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Education

Anna University, Thiagarajar College of Engineering

BTech IN INFORMATION TECHNOLOGY

📍 Madurai, India

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

Tamil Nadu State Education Board, Star MHSS

HIGHER SECONDARY SCHOOL

📍 Tuticorin, India

2013/Jul - 2015/Apr

- Coursework: Tamil, English, Maths, Physics, Chemistry, Computer Science
- Score: 1164 out of 1200 (97%); School Percentile: 95

Tamil Nadu State Education Board, Star MHSS

SECONDARY SCHOOL

📍 Tuticorin, India

2011/Jul - 2013/Apr

- Coursework: Tamil, English, Maths, Science, Social Science
- Score: 486 out of 500 (97.2%); School Percentile: 95

Experience

TCS Research & Innovation | Machine Learning Developer #MachineLearning

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

📍 Chennai, India

2019/Apr - Present

- Improving 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 (Winner - DDS Profile Hunt)
- Developed yield prediction model for hybrid corn crops to recommend effective crossing of species (Winner - DDS ML Hackathon)
- Developed computer vision pipelines to solve curved text extraction, perspective correction etc (Winner - Image Enrichment Challenge)

IIT Madras / One Fourth Labs / AI4Bharat | Project Intern #DeepLearning

MENTORS: DR. PRATYUSH KUMAR, DR. MITESH KHAPRA

📍 Chennai, India

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 #TheoreticalMachineLearning

MENTOR: DR. HARISH GURUPRASAD

📍 Chennai, India

2018/Jun - 2018/Jul

- Experimented Attention models' impact on neural networks

NPTEL | Teaching Assistant #SocialNetworks

COURSE INSTRUCTOR: DR. SUDARSHAN IYENGAR

📍 Online

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

MENTOR: DR. SUDARSHAN IYENGAR

📍 Ropar, India

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, ~~Java~~

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

- 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 **Winner** of Image Enrichment Challenge 2 by TCS
- 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 **Mentor** of HCL Madurai Hackathon
- 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 contest 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