NIKHIL V GOPAL

PROFILE

A professional with organizing and coordinating skills. Highly passionate towards coding and skill development

CONTACT

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EDUCATION

Bachelor of Technology (BTech)
Electronics and Communication Engineering | 2018-2022
SCTCE, Trivandrum

B. Tech CGPA	7.7
12th Percentage	80.8
10th CGPA	9.4

HOBBIES

Singing, Free drive, Gaming, Writing, Travelling

PROFESSIONAL EXPERIENCE

Pianalytix | Research Intern
December 2020 – January 2020

- Pianalytix is an educational start- up aiding learners implement machine learning to solve real-life problems.
- Explored various machine learning algorithms
- Implemented a KNN based model to predict the rate of diffusion of LPG to predict and avoid damage.

The Sparks Foundation | Intern
December 2020 – January 2020

- A Singapore - based NPO working to bring parity in education.
- Implementing Computer Vision based models.
- Simulating IoT systems using RaspberryPi and Arduino

Finland Labs in association with IIT Roorkee | Intern
November 2020 - December 2020

- Expert session on introduction to IoT, AI & ML
- Hands on training in programming with ESP8266 chips
- Practical sessions on programming based on AI and ML.

PROJECTS

Monitor Vaccine Efficacy using AI & ML|Solve 4a Billion Challenge - EY

- A working prototype was designed and implemented to monitor the COVID-19 vaccine efficacy in India.
- A web app was developed using node.js that collects images of forms which were further identified using Optical Character Recognition (OCR).
- Built and trained a model to predict and visualize vaccine efficacy.

Prediction and Classification of Rate of Diffusion of LPG

- Using different parameters, gas leak rate and its intensity was calculated and updated in a dataset.
- Model was trained using the KNN classification algorithm.
- The predictor can successfully interpret the outcome upon entering a set of parameter values.

SKILLS

- Python, C++ and C
- HTML & CSS
- Basics of Machine Learning Python Libraries (NumPy, Matplotlib, Pandas, OpenCV, TensorFlow, Keras, Pytesseract, Sklearn)
- Proficient in Microsoft Office

ADDITIONAL CERTIFICATION

- Google IT support specialization [5 Courses]
- Machine Learning basic courses
- Webpage development using HTML & CSS
- Python Specialization

Home Automation using IoT, Blynk app and AWS cloud

- A system was designed to control home appliances to utilize power efficiently from any location at any time
- The home appliances were controlled using a relay module and linked via WIFI using NodeMCU ESP8266 chip.
- The output data could be monitored through AWS cloud server and the devices could be controlled by Blynk application.

Non-invasive Cuffless Blood Pressure Monitoring using PPG Signal

- A system was proposed to measure blood pressure using PPG signal data obtained from a finger.
- An electronic circuit is implemented to calibrate and monitor the PPG signal.
- Using AI techniques, the value of blood pressure could be estimated.

ACHIEVMENTS

EY Techathon 2021 – Ideathon (Ernst and Young)

- The prototype presented received appreciation amongst 25 semifinalists.
- The idea and web app were developed prioritizing people lacking internet connectivity.

The Innovation Challenge – Ideathon (IEDC)

- Achieved 2nd place in an ideathon organized by IEDC during June 2020.
- Generally, usage of gas geysers is a threat due to the production of carbon monoxide.
- As a solution, a gas geyser design was proposed to alert the users of carbon monoxide formation, which is also incorporated with an activated charcoal filter to adsorb harmful gases like carbon monoxide and carbon dioxide.