Bhargav Ravat

bhargav.ravat@gmail.com 9638713028 https://www.linkedin.com/in/bhargav-ravat-47b31955/

SUMMARY

Experienced Head of Development (Projects) with 8+ years of experience in leading complex projects from inception to completion. Proven track record of success in developing and deploying products for multiple industry verticals. Seeking to apply for the suitable position of leverage experience in developing innovative solutions for large enterprises.

EXPERIENCE

Head of Development (Projects)
Vmukti Solutions Pvt Ltd **May 2021 - Present, Ahmedabad**

- Solutions Architecect , Design Develop and Deployement
- Embedded , IoT (WiFi)
- Well Experienced in End to End Pipeline of Video Streaming and Analytics
- Azure Cloud Infrastucture
- Computer Vision (Classification , Detection , Recognition and Tracking)
- Machine Learning
- Cloud Deployement (DevOps)
- Edge Device Deployement
- Deep Learning Deployement (MLOps)on Mass Scale
- Team Management
- Product Management
- B2G - Technical Bidding For Election Projects
- Technical Evaluation of System Integrators For Election Projects

Research & Development Manager (AI)
Vmukti Solutions Pvt Ltd **May 2020 - April 2021, Ahmedabad**

Project Manager
SNDK Corp (Deepkiran Foods Pvt Ltd) **February 2019 - April 2020, Ahmedabad**

Tech Lead Embedded Systems
Tailored Solutions Pvt Ltd **March 2018 - January 2019, Ahmedabad**

Embedded Engineer
Reve Automation LLP **December 2016 - February 2018, Gandhinagar,Gujarat**

Contract Assignee
CMC Ltd **December 2012 - August 2013, Hyderabad, India**

PROJECTS

Election System - Counting - Vote Generation using OCR
Vmukti Solutions Pvt Ltd • June 2021 - Present

- Counted votes for a specific candidate using IP camera footage, OCR and computer vision
- Collecting relavant dataset , annotation , training a text detector model with text recognition model, using metrics to judge the success of the model, and replicating the model after acquiring the metrics.
- Integrated the results from the OCR (Optical Character Recognition) system with the backend, generating the vote count and final results for the dashboard.

Face Based Attendance System using Deep Learning on IP Camera
Vmukti Solutions Pvt Ltd • September 2020 - Present

- Deployed real time facial attendance system for Government Hospital , Patna (Bihar)
- Obtaining feed from IP Camera , extraction of frames , passing through DNN and using API end point sharing SMS to the registered users.

Multimedia Streaming Server - NIC
Vmukti Solutions Pvt Ltd • May 2020 - Present

- Under Digital India Mission, developed nation-wide multimedia streaming server from scratch in NodeJs, which delivered live video streaming for thousands of concurrent users, and was used for webcasting major events like the PM's Independence Day address
- Created a real-time multimedia streaming server which transcoded and streamed multiple live feeds simultaneously, and also acted as a secure CDN, by employing streaming protocols and technologies, such as RTMP and HLS, to create a streaming service for live events.
- Designed a Video Management Software which provides authorization authentication, schduling of the future events, view archived videos and download them which resulted in a 33% increase in productivity
- Implemented a high availability solution for the Multimedia Streaming server, increasing the uptime from 90% to 99.9% by using Active-Active and Active-Passive failover techniques.

Real-time live streaming of election/exam surveillance using 4G technology
Vmukti Solutions Pvt Ltd • May 2020 - Present

- Preparing firmware for IP Camera
- Streaming Server
- Customised Dashboards
- Reduced the cost of Project by 6.7 times using DevOPs Prcatices

Gender Classification on IP Camera Footage
Tailored Solutions Pvt Ltd • March 2018 - October 2018
·Classified Gender on a machine vision algorithm by implementing KNN and Naive Bayes Machine Learning models, achieving an accuracy of ~91% on the test data.
• Implemted the Gender Classification on IP Camera Footage with a 68.8% accuracy, which was achieved by using OpenCV and Python and a TensorFlow for the model.
• Created an End Point API and integrated it with an existing script to enable the classification of gender on IP camera footage, resulting in an increase of gender classification accuracy by 10% within a quater

Vehicle detection and tracking
Reve Automation LLP • June 2017 - February 2018
• Developed a vehicle detection and tracking system using multiple IP cameras and image classification to track vehicles on a defined path.
• Designed and implemented a real-time vehicle detection and tracking system, using object tracking and pattern matching algorithms. Achieved average tracking frame rate of 14.3 fps and average detection frame rate of 20 fps.
• Edge Detection and Countoring implemented with Canny and Sobel edge detection techniques.

Indoor Navigation System
Reve Automation LLP • June 2017 - February 2018
• Using the RSSI property of BLE calulated the distance formula in order to determine the distance between two devices, improving the accuracy of the distance by an average of 2%.
• Completed a POC project for PSU Organisation for the Asset Finding use case along with Indoor Navigation System, which reduced the asset finding time.
• Designed and implemented a Python module for calculating distance between a Bluetooth beacon and a receiver based on signal strength. This functionality was used to build an indoor navigation system for the visitors.

Wi-Fi based IR blaster
Reve Automation LLP • December 2016 - June 2017
• Designed and developed a Wi-Fi based IR blaster using Arduino and NodeMCU, allowing users to control their electronic appliances through a mobile application.
• Used an oscilloscope to understand the patterns of IR remote devices, including by developing a Wi-Fi based IR blaster that can control an AC and a TV.
• Developed Arduino Code for ESP32 MCU that is capable of running for 7 years (as of March 2020) with IR blasting for remote control for home appliances

EPHS MISRA C Testing
CMC Ltd • December 2012 - August 2013
• C Code Review / Bug Filling
• Manual Black Box Testing
• Polyspace Tool

EDUCATION

M. Tech - VLSI and Embedded Systems
Ganpat University • Mehsana , Gujarat • 2016 • 7.76 CGPA / 10 CGPA

Bachelor of Engineering -Electronics and Telecommunication
Birla Vishwakarma Mahavidhyala Engineering College , Gujarat Technological University • Ahmedabad • 2012 • 6.76 CGPA/ 10 CGPA

Higher Secondary School Certificate
Gujarat Secondary & Higher Secondary Education Board • Gandhinagar,Gujarat • 2008 • 77.80%

Secondary School Certificate
Gujarat Secondary Education Board • Gandhinagar,Gujarat • 2006 • 84.71%

CERTIFICATIONS

IBM AI Engineering Specialization
Coursera - IBM • 2020
https://www.coursera.org/account/accomplishments/specialization/RUEEMC2M6M6X

Deep Learning Specialization
Coursera - Deeplearning.ai • 2020
https://www.coursera.org/account/accomplishments/specialization/L5V264WC36LS

Machine Learning with TensorFlow on Google Cloud Platform Specialization
Coursera - Google Cloud • 2020
https://www.coursera.org/account/accomplishments/specialization/B7T857L45WVB

Industrial IoT on Google Cloud Platform
Coursera - Google Cloud • 2020
https://www.coursera.org/account/accomplishments/specialization/B7T857L45WVB

INVOLVEMENT

Member of Board of Studies
Birla Vishwakarma Mahavidhyala Engineering College • June 2020 - Present

SKILLS

Technical Skills: Opencv , Image Processing , Video Analytics, IoT, AI, Machine Learning, Tensorflow, Jupyter Notebooks, Deep Learning, Neural Network, Convolutional Neural, Raspberry Pi, Jetson Nano, Sensor Interfacing, IP Camera, Bash Scripting, Azure , Cloud Computing , RTMP , RTSP , HLS , Data Science, Git , OpenCV