# JEEVANKUR TALUKDAR

## education

B. Tech, Indian Institute of Technology (IIT) Kharagpur, West Bengal 2017 - 2021

# contact

mail - jeevankur.iit@gmail.com mobile : +91 7384543028 website : jvank.com

tools Python, C++, C#, Java, JS OpenCV, TF, PyTorch, Keras, Unity3D MATLAB, ROS, GIT, Linux, Node, Flask

# PROJECTS AND PUBLICATIONS

#### [5] GANs to Simulate Weather and Climate Dynamics | Research Project [ PDF ]

Weather has fast dynamics, and climate has slow dynamics. The interactions between a fast and a slow dynamics is modelled well by the Lorenz-g6 system. GANs are trained and tuned over this system to simulate the dynamics of Weather and Climate.

# Research-field : Machine Learning, AI

#### [4] ConnectAll | Hack-A-Bit National Hackathon 2019 [Code]

A platform to enable communication across physical disabilities by converting any form of input to all other forms of communication output. For example speech to text, text to sign language etc. All forms of input are converted into raw text using neural networks, azure vision api, and back to the desired output. Tensorflow, OpenCV, Azure Vision api, Python Flask, Full Stack

#### [3] CodAR | Research Publication - Poster [PDF]

Talukdar, J., Sharma, V., Bhagat, K.K. (ICCE 2019) CodAR : An augmented reality based game to teach programming. (Shih, J. L. et al. (Eds.) (2019). Research-field : Computers in Education , HCI | AR / VR

#### [2] S.M.A.R.T - Simulation Monitoring and Augmented Robot Training [Code]

Digital Twin AR Platform for Robots. SMART is a flexible platform to simulate and deploy programs for targeted remote robotic devices through an augmented virtual environment over the cloud. (using Unity 3D, Vuforia, Sockets, Arduino).

Research-field : Robotics, Human Robot Interaction HRI | AR / XR, Serial Communication, Sockets, Vuforia

#### [1] MedAI | Phillips India National Hackathon 2019 [Code]

An application to predict diseases through interrogation while also understand and organise handwritten medical prescriptions. Keras, OpenCV, Azure Vision api, MedaCy, Python Flask, Full Stack

#### [0] Jvankooo [voutube]

My hobby youtube channel where I explore and build various robotics, software and AI projects from ground up. Al, OpenCV, Robotics, Python, Raspberry Pi, Arduino

# WORK EXPERIENCE

#### [4] OLA Electric | Data Scientist - I

Customer Churn : Developed, trained and deployed customer churn pipelines for multiple business verticals. (Owner) Fraud Detection : Worked on customer fraud detection models for Ola Dash. (Team) Voice Assist : . Worked on wake word detection, Voice Activity Detection (VAD) and Speech Classification problems for edge devices. (Team) Area : Data Science, ML | Machine Learning, Neural Networks, Big Data, AI

#### [3] RISE - Cyprus Interaction Media Lab | Software Development Intern [ PDF ]

Authored a Virtual Reality content creation and sharing, interactive educational platform from scratch (using Unity 3D). Developed (flask) backend for data storage over (mongodb) database and user authentication. Implemented data serialisation and handling, analytics, session management, etc. Area : Virtual Reality , Human Computer Interaction | VR, Unity, Ed Tech

## [2] CEAMT, IIT Kharagpur | Student Researcher

Worked on digital image processing techniques for automated FSW process using cheap monocular cameras on a KUKA KR500 manipulator. Area : Robotics, Vision | Machine Vision, Industry 4.0

## [1] RCSL - Yuntech, Taiwan | Research Intern [ PDF ]

Implemented IOT functionalities (mqtt) over a robot based multi-modal learning system. Developed a program to demonstrate the extensive features of the new system which was then tested with students for further research. Area : Robotics, Robot Based Learning | IOT, Android

# [0] ClassHero (H. Labs USA) | Software Engineering Intern [PDF]

Developed a system for dynamic and consistent math puzzle generation (using nodejs and express) with user data analysis and game state storage into a (mongodb) database. Designed, developed and integrated a web graph application to craft stories and puzzles (using bootstrap, jquery and vis.js) Area : Intelligent Games | Full Stack , Data

# ACTIVITIES AND LEADERSHIP

## [3] Co Founder, Tech Head | Computer Graphics Lab, IIT Kharagpur

The computer graphics student's group of IIT Kharagpur. Involved in several projects and frequent releases on playstore. Founded in 2019 and managed all technical activities. Successfully funded by IIT Kharagpur and various game studios. Currently acting as Alumni Advisor RnD.

#### [2] Member | Technology Robotix Society, IIT Kharagpur

Documented several technical projects, conducted events, competitions and workshops for students all over India. As a team we successfully organised the annual Robotix fest which is the major event for the society.

## [1] Student Ambassador | Unity Technologies

Mentored hundreds of students in game development using Unity3D Game Engine, C# and C++. Conducted few events and a Major workshop during KTJ 2020 for game development.

## [0] Other Activities

Developed several commercial softwares and games. Vocalist and Guitarist in Hall Music team. Member of the Open-Soft, Hardware and Basketball teams.

Manager : Amit Agarwal | Jun 2021-Present

Mentor: Dr. Andri Loannou | Apr-Jun, 2020

Mentor: Dr. SK Pal | Feb-May, 2020

Mentor: Dr. Nian Shing Chen | Dec, 2019

Mentor: Dr. Golam Ashraf | May-July, 2019

Mentor: Dr. Adway Mitra | Ongoing