

# CHAITANYA KHARYAL

@ chaitanyajee@gmail.com    ☎ 9419242775    📍 Hyderabad, India    in www.linkedin.com/in/chaitanya-kharyal-6b388424/  
🌐 web.iiit.ac.in/ chaitanya.kharyal/    🐙 github.com/kharyal    https://roomno308.github.io/

## EXPERIENCE

### Software Developer

#### Microsoft

📅 Current    📍 Hyderabad, India

- Working in Azure Compute team

### Researcher

#### Robotics Research Center, IIIT-Hyderabad

📅 Current (Part time)    📍 Hyderabad, India

- Working on monocular Multibody SLAM problem
- Worked on improving the performance of Visual-Inertial Odometry (V-IO) algorithms in highly dynamic environments

### Computer Vision and Machine Learning Intern

#### Matchday.ai

📅 May 2019 - July 2019    📍 Hyderabad, India

- Worked on ML and CV pipeline. Included ground segmentation of football fields, player classification and tracking, integration of different camera views etc.

### Teaching Assistant

#### Linear Algebra, Embedded Systems Workshop

📅 4 months each    📍 Hyderabad, India

## PROJECTS

### Gradient Evolution

- Rediscovering the idea of gradient evolution presented in **The Evolutionary-Gradient-Search Procedure in Theory and Practice** from scratch.
- Uses Python, Numpy, OpenAI-Gym

### Evolution Simulation

- A simple simulation which simulates the evolution of simple organisms with simple traits such as speed, size, consciousness etc. using the Evolutionary Algorithm.
- Uses Python, Pygame

### GANs

- Created different type of GANs for MNIST dataset, which includes GAN with labels, ie. given the label (0-9), the GAN produces an image for that number. Implemented using Python, Pytorch.

## PUBLICATIONS

- RP-VIO: Robust Plane-based Visual-Inertial Odometry for Dynamic Environments [IROS 2021]

## ACHIEVEMENTS

### Research Award

#### IIIT, Hyderabad

📅 2020-21    📍 Hyderabad, India

### Dean's List and Merit List

#### IIIT, Hyderabad

📅 May 2019    📍 Hyderabad, India

- Won Dean's list award for being in top 5% of my class for three semesters and Merit List award for one semester.

### RL hackathon

#### AI crowd

📅 February 2019    📍 Hyderabad, India

- Won the Reinforcement Learning Hackathon Hosted by Alcrowd

## PROFESSIONAL SKILLS

### Languages:

C, C++, Python (Numpy, PyTorch, PyGame, OpenCV etc.), C#, MATLAB, JavaScript, CSS, Bash, PowerShell, Arduino, Iverilog, RISC-V

### Tools:

Git, K8s, Docker, Unity, Unreal Engine, AirSim

## COURSEWORK

Data Structure, Computer Programming, Mobile Robotics, Machine Learning, Artificial Intelligence, Probabilistic Graphical Models, Discrete Maths, Digital Logics and Processors, Linear Algebra, Computer System Organization, Signals And Systems, Probability and Random Processes, Linear Electronic Circuits, Embedded Hardware Design, Communication Theory, Digital Signal Processing.

## EDUCATION

### B.Tech Electronics and Communication Engg.

#### IIIT, Hyderabad

📅 2017-2021

CGPA: 9.04

## CO-CURRICULAR

- Represented My school in North Indian Regional tournament of football.