CHAITANYA KHARYAL

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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

Al 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.