

Sumanth Reddy Cherupally

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RESEARCH INTEREST

I am interested in working at the intersection of Computer Vision, Reinforcement learning and its applications. I have previously worked with various Object detection and segmentation models. I have very little experience with RL at the moment.

EDUCATION

Indian Institute of Technology Hyderabad

Bachelor of Technology in Electrical Engineering

Hyderabad, Telangana, India

GPA: 8.76/10.0

2017-2021

TECHNICAL SKILLS

Programming Languages: Python, C++, Golang (basic)

ML frameworks: Tensorflow, Pytorch

Certifications: Deep learning specialization from deeplearning.ai (Coursera),
Cybersecurity for Business specialization from University of Colorado (Coursera).

Other Tools: Wireshark, Matlab, Dockers.

RELEVANT ACADEMIC COURSE WORK

Courses completed[Grade]: Electric Circuits[A], Analog Electronics[A-], Network Theory and synthesis[A-], Applied Digital Logic Design[A-], Digital Signal processing[A-], Advanced DSP[A], Digital Modulation Techniques[A-], Basic Control Theory[B], Control Systems[A-], Data Analytics[A-], Data Science Analysis[A-], Engineering Electromagnetics[A], Analog Electronics-II[A-], Embedded programming[A-], Digital System Design[B], Signal and Communications[B], Power Electronics[A-], Smart Grid[A-], Renewable Energy and Power systems[A].

PUBLICATIONS

1. S. R. Cherupally, S. Boga, P. Podili and K. Kataoka, "Lightweight and Scalable DAG based distributed ledger for verifying IoT data integrity," 2021 International Conference on Information Networking (ICOIN), 2021

PROJECTS

Surveillance Camera Obstruction Detection

Sept 2020 – May 2021

Mentor: Dr. Sumohana S. Channappayya, Associate Professor, Dept of Electrical Engineering, IITH

- Using various Deep learning techniques like Semantic segmentation, Depth estimation to flag occluded camera images.
- Developed a model to consider manual feedback of flagged images and modify the algorithm threshold.
- Worked in collaboration with Honeywell India.

Introducing blockchain for Inter domain route verification (BGP)

Aug 2020 – Feb 2021

Mentor: Dr. Kotaro Kataoka, Associate Professor, Dept of Computer Science and Engineering, IITH

- Extending on our work of DAG based distributed ledger we are addressing the route verification problem in BGP used by Autonomous systems(AS).

Lightweight Scalable DAG based blockchain for verifying IoT data integrity

Sept 2019 – Aug 2020

Mentor: Dr. Kotaro Kataoka, Associate Professor, Dept of Computer Science and Engineering, IITH

- Proposed and developed a dag blockchain system for IoT data integrity verification.
- Accepted at **ICOIN 2021** - 35th International conference on Information Networking.
- Presented at CEATEC 2019, Japan.

Remote battery monitoring system

Nov 2018

As a part time SD intern at SNF consultancy

- Developed a battery monitoring system which can work with constrained resources - Bandwidth, Power
- Included programming ESP32 micro controllers using the open source painless library.
- Click for poster.

WORK EXPERIENCE

BNY Mellon Technology

Software Development Intern

May 2020 – July 2020

- Worked as a summer intern in a team to redesign and implement a internal dashboard.

EXTRA-CURRICULAR ACTIVITIES

Class representative of my batch during 2017-18.

General Knowledge club captain at school.