

MRUTYUNJAY ANUROOP

I build tech that can see, hear, think and fly!

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Evanston, IL



PATENTS



Device and Method for Deep Learning Aided Custom Gesture Recognition

Patent Number: 201941001483



A No-GPS and No-Internet Model for Selective and Restrictive Location Correspondence in Deterministic Environments

Patent Number: 202041019994

EXPERIENCE

High Performance Cluster Computing Consultant

Research Computing Services, Northwestern University

10/2021 - Ongoing Evanston, United States

Aided researchers and professors in the use of High Performance Cluster - Quest. Involved in troubleshooting of computational workflows and maintenance of the cluster.

Head AI/ML

Asmadiya Technologies Pvt Ltd

07/2020 - 07/2021 Pune, India

High growth rate startup with a strong international clientele like DHL and Bayer

- Led a team of 7, conducted daily SCRUM meetings and sync ups
- Architected AI solutions to automate vehicle insurance claims and process them within 30 seconds
- Achieved video based vehicle inspection on the edge using Tensorflow mobile with 92% accuracy
- Designed auto-scaling clusters to ensure 3 second turn-around time for NLP based resume parsing systems
- Contributed in organisational decision-making and roadmap correction to generate 50% YoY growth

Founder

FoGR Tech Pvt Ltd

05/2018 - 05/2020 Hyderabad, India

Startup recognized by the government of India for innovation in emerging technologies

- Developed and patented a wearable for gesture recognition using AI with 98% accuracy
- Bootstrapped the company by winning hackathons and conducting workshops for students and faculty across the country
- Developed SDKs in 70+ programming languages to facilitate easy integration of wearable in products like drones and 3D games
- Built a lean product development team with a systematic process to analyse user feedback and pivot fast

Research Assistant

Artificial Intelligence Lab, University of Hyderabad

12/2019 - 04/2020 Hyderabad, India

Research lab headed by Prof. Siba Kumar Udgata

- Developed a unified wearable of assistance for the blind using custom AI algorithms
- Interfaced Raspberry Pi with Pi Camera and wireless microphone
- Built a flutter-based volunteer platform for the visually challenged with NOSQL backend

THINGS I'M PROUD OF



Inventor @21

Defended my 1st patent in court without a patent attorney



Incorporated first company @19

Founded with a vision to build the Future of Gesture Recognition (FoGR)



Developed first website @16

Introduced myself to the internet through my personal portfolio
<https://anuroopshannu.me>

SKILLS

Machine Learning

Privacy-Aware Data Computing

Distributed Edge Computing

Deep Learning Computer Vision

Object Recognition Algorithms

Cloud Technologies

AWS EC2 AWS S3 AWS Lambda

GCP Compute Engine GCP Pub/Sub

Azure Cognitive Services

Tools Used

Linux CMD Git Docker SSH

Programming Languages

Python Rust Julia Java C

Embedded Hardware

NVIDIA TX2 Jetson Nano

RaspberryPi Arduino ESP32

EDUCATION

Master's in Computer Engineering

Northwestern University

📅 09/2021 - Ongoing 📍 Evanston, United States

GPA

3.8 / 4.0

Bachelor's in Electronics and
Communication Engineering

Jawaharlal Nehru Technological University

📅 08/2015 - 05/2019

GPA

3.6 / 4.0

PUBLICATIONS

Non-max Suppression for Real-Time Human
Localization in Long Wavelength Infrared Region
**Springer Publications / Advances in Decision Sciences, Image
Processing, Security and Computer Vision**

Mrutyunjay, A., Kondrakunta, P., & Rallapalli, H.

📅 2020 🔗 10.1007/978-3-030-24318-0_20

Neural Networks to categorize Eye Conditions

Mrutyunjay A., Kondrakunta P.

📅 2019

ATMOS Conference, BITS Pilani, Hyderabad - **Best Paper**

PROJECTS

Privacy-Aware Speech Therapy (PAST)

🔗 <https://www.youtube.com/watch?v=wM3RPnj7sVY>

Developed a hand-held embedded device to provide stutter feedback to kids suffering from speech disorders. Our main motto was to keep patient data private by leveraging edge-CNN accelerators and tinyML.

Titrated Ensemble Aggregation Method (TEAM) for AI
generalization

Implemented stain augmented deep ensembling techniques to tackle institutional data bias in computational histopathology. Improved cross-institute model performance of an AI based breast-cancer screening tool by 15%

Gesture Based Door Lock

Developed a smart hand gesture based door locking system involving custom embedded door lock design, and deep learning based sensor pattern recognition

FastJot - Automated Note making

Built a Raspberry Pi based automated solution to the tedious task of note-taking for students. The device uses speech-to-text to make notes in class and stores them semester-wise on DropBox. Also provisions automated note recording based on class schedules.

Violet - Personalized Voice Assistant

Developed an open-source voice assistant using python with essential features such as alarms, media player, newsreader, weather reports and YouTube/Google search capabilities

AWARDS



**Winner Hackadrone (amongst
4000 global applicants) - India's
1st Autonomous UAV Hackathon**

Awarded by Microsoft, Cyient Technologies and the State Government of Telangana



**Best Paper "Neural Networks to
Classify Eye Conditions"**

Awarded by Birla Institute of Technology and Sciences, Pilani, ATMOS 2019



**Graduated the YCombinator
Startup School, 2018**



**College topper with 92% in
undergrad final semester**

TEACHING EXPERIENCE

Key Resource Person for multiple Faculty Development Programs (FDPs) organized by the Ministry of Electronics and Information Technology. Conducted workshops in the fields of Internet of Things and Data Science.

Letters of Appreciation

FIND ME ONLINE



LinkedIn

<https://www.linkedin.com/in/anuroop-mrutyunjay-b06474114/>



GitHub

<https://github.com/anuroopshannu>



Twitter

www.twitter.com/anu-mjay



Project Portfolio

<https://anuroopshannu.me>