



Aditya Binoy

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● EDUCATION AND TRAINING

29/09/2020 – CURRENT Chennai, India

BACHELOR OF TECHNOLOGY(B.TECH) SRI SAIRAM ENGINEERING COLLEGE (AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

Website <https://sairam.edu.in/> | **Field of study** Artificial Intelligence and Data Science | **Final grade** 8.32

21/06/2018 – 07/08/2020 The Nilgiris, India

SENIOR AND HIGHER SECONDARY(11TH AND 12TH) KENDRIYA VIDYALAYA

Website <https://kvsangathan.nic.in/>

03/04/2017 – 14/05/2018 The Nilgiris, India

SECONDARY (10TH) HOLY INNOCENTS SCHOOL AND JUNIOR COLLEGE (ICSE)

04/07/2022 – 04/10/2022 Chennai, India

DESIGN AND IMPLEMENTATION OF HUMAN-COMPUTER INTERFACES (ONLINE) Nptel

Website <https://swayam.gov.in/>

04/07/2023 – 04/10/2023 Chennai, India

ENTREPRENEURSHIP (ONLINE) Nptel

Website <https://swayam.gov.in/>

13/09/2023 – 27/09/2023 Chennai, India

MONGODB BASICS (ONLINE) ICT Academy

Website <https://ictacademy.in/>

10/09/2023 – 27/09/2023 Chennai, India

2D/3D CAD MODELING OF BUILDING ENVIRONMENT (ONLINE) Bently

Website <https://ictacademy.in/>

13/09/2023 – 27/09/2023 Chennai, India

MODELING STRUCTURES WITH ANALYTICAL MODELER (ONLINE) Bently

Website <https://ictacademy.in/>

● WORK EXPERIENCE

19/07/2022 – 17/08/2022 Coonoor, India

INTERN CORDITE FACTORY, ARUVANKADU

Automation in Industry
Project- Clarifier Automation

09/01/2023 – 24/01/2023 Bengaluru, India

INTERN ADIROHA SOLUTIONS OPC PVT

● PROJECTS

Underwater Communication System for AUV

The objective was to increase the underwater unmanned aerial vehicle; drone's potential for underwater research and exploration by utilizing cutting-edge technology like computer vision and machine learning. I designed and implemented the machine learning algorithms, which allowed for underwater object detection and autonomous navigation with the help of convolutional neural networks (CNNs) trained to identify underwater characteristics and marine life from photos that the drone's cameras and sensors recorded. I was drawn to the task of training CNN architectures tailored to the unique characteristics of underwater images, including dealing with low-light conditions, varying water turbidity, and distortions caused by refraction. On the computer vision front, the project introduced me to advanced techniques for visual simultaneous localization and mapping (V-SLAM), which played a crucial role in enabling the drone to localize itself relative to underwater landmarks and to build a map of its environment in real-time.

● PUBLICATIONS

2024

[Underwater Communication System for AUV](#)

This publication addresses the challenge of reliable underwater communication in difficult acoustic environments by applying AI-based denoising techniques to acoustic signal processing. The proposed solution utilizes advanced deep learning architectures, with a focus on convolutional neural networks (CNNs), to enhance signal clarity and reduce background noise. Integrated into real-time communication systems, this method has demonstrated superior performance through rigorous simulations and field trials conducted under diverse underwater conditions. The approach significantly improves communication reliability by mitigating noise and refining signal quality in challenging acoustic settings.

International Journal of Novel Research and Development(IJNRD)- Volume 9 Issue 4, April-2024

Link <https://www.ijnrd.org/papers/IJNRD2404361.pdf>

2022

[A study on Navigation/tracking System Combining GPS and NFC Technologies](#)

According to the International Telecommunication Union (ITU), the number of mobile devices worldwide is projected to reach 60.835 billion by the end of 2025. As wireless technology advances and networks expand, Location-Based Services (LBS) are gaining significant research interest. Indoor navigation systems, which address the limitations of GPS in indoor environments, are a growing research area. This study introduces an NFC-based indoor navigation system that improves user orientation by allowing navigation updates through NFC tags placed throughout a building. The paper outlines the system requirements and the potential of NFC specifications, setting the stage for future research and development in this field.

International Journal of Computer Science Trends and Technology – Volume 10 Issue 3, May-Jun 2022

Link <http://www.ijcstjournal.org/volume-10/issue-3/IJCST-V10I3P3.pdf>

● LANGUAGE SKILLS

Mother tongue(s): **MALAYALAM**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	B2
HINDI	B2	B2	B2	B2	B2
TAMIL	C1	A2	C1	C1	A1
GERMAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

● **DIGITAL SKILLS**

Microsoft Office | Microsoft Powerpoint | Social Media | Microsoft Word | Microsoft Excel | photography | Python | Java