

# Pronoy Kundu

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## Introduction

A free-spirited final-year computer science student who loves to explore and have fun with new technologies and domains, and find quick but appropriate solutions. I am excited to learn new skills and gain new forms of knowledge while using my current skills and corporate experience to positively impact the organization and maintain its standards.

## Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech., CSE	Anna University (MIT)	9.3	2024
Intermediate (Class XII)	Army Public School, Kirkee, Pune	99.8% (499/500)	2021
Secondary (Class X)	Kendriya Vidyalaya, Vayusena Nagar, Nagpur	97.8% (489/500)	2019

## Experience

**TECHNOLOGY SUMMER INTERN**, Barclays – Pune Jun 2024 – Jul 2024

- Worked on a Data Engineering & Analytics project, and processed raw **Excel** data feeds, applying business logic to generate formatted reports using **Python Pandas**, and automating email delivery.
- Deployed the workflow using **Kedro**, achieving **100%** automation with scheduled daily runs.
- Conducted anomaly detection on Time-Series data using **AutoEncoder & Isolation Forest**, achieving a **95%** accuracy.

**INTERN**, DRDO – Centre for Air Borne System (CABS), Bengaluru Jun 2023 – Jul 2023

- Applied **U-Net** for semantic image segmentation on a dataset of 7,000+ images, achieving an accuracy of **85%**.
- Implemented **Mask R-CNN** on a dataset of 170 images, achieving a COCO-style mAP of **84%** and a mask mAP of **76%** in performing instance segmentation.
- Compared training from scratch vs. transfer learning to optimize performance on limited data, achieving an average **9%** reduction in loss.

## Technologies

**Languages:** C, C++, Java, C#, SQL, JavaScript, Python, TypeScript

**Technologies:** Three.js, React.js, Next.js, Flutter, Tailwind CSS, MongoDB, MySQL, Blender, Unity, Node.js, Express.js

**Libraries:** Pandas, NumPy, TensorFlow, Keras, Scikit-learn, Seaborn, Matplotlib, SciPy, PyTorch, NLTK, OpenCV,

## Projects

**Off-Board Path Planning System for UAV-Base Stations** | NGN Labs [github.com/Pronoy513/UAVPath](https://github.com/Pronoy513/UAVPath)

- Developed an off-board system using **DeepLabV3+** to identify No-Fly Zones for UAV path planning, using a custom dataset made of Google Earth images, achieving **92.2%** accuracy.
- Introduced a weighted DBSCAN algorithm to generate waypoints for UAV navigation through population clustering. It improves optimal clustering by 65% as compared to traditional DBSCAN.

**Flight Booking App** | Naan Mudhalvan [github:FlightBookingApp\\_MERN](https://github.com/NaanMudhalvan/FlightBookingApp_MERN)

- Built a flight booking app using the **MERN** stack (MongoDB, Express, React, Node.js), enabling seamless flight management and real-time data handling.
- Developed role-based authentication with 3 user roles (Customer, Flight Operator, Admin), allowing users to search, book & cancel tickets, register flights and admins, and manage bookings.

**British Airways Data Science Virtual Internship** | Forage 2024

- Customer reviews were scraped to create a data set of 1000+ reviews and **exploratory data analysis (EDA)**.
- Applied **NLP** techniques to analyze reviews and ratings, providing insights into customer experience and identifying positive and negative trends. Achieved a classification accuracy of **85.3%** in predicting customer buying behavior.