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Anindya Sen

Home: Chattogram, Bangladesh

Email address: senanindya21@gmail.com **Phone:** (+880) 1821360880

Website: https://senanindya.github.io/

LinkedIn: https://www.linkedin.com/in/anindyasen21/ **Google Scholar:** https://scholar.google.com/citations?user=AempadUAAAAJ&hl=en&authuser=1

Github: https://github.com/senanindya

Gender: Male **Date of birth:** 21/10/1998 **Nationality:** Bangladeshi

EDUCATION & TRAINING

[16/07/2018 - 16/07/2022]

Bachelor of Technology in Computer Science and Engineering

Vellore Institute of Technology (VIT) https://vit.ac.in/

City: Vellore | **Country:** India | **Final grade:** 8.01/10.00 | **Thesis:** Decentralized Healthcare Network Platform

Relevant Courses: Applied Linear Algebra, Artificial Intelligence, Web Mining, Image Processing, Machine Learning, Applications of Differential Equations, Parallel and Distributed Computing, Internet of Things, Human Computer Interaction, Digital Forensics, Information Security Management.

STANDARDIZED TEST SCORES

IELTS

Listening 8.5 / Reading 9.0 / Writing 7.0 / Speaking 7.5

Overall: 8.0

GRE

Quant: 158 / Verbal: 154 / AWA: 3.0

PUBLICATIONS

[2022]

Route Planning Service for Emergency Vehicles with Increased Accuracy and Efficiencyfor Online Platforms

Reference: Sarkar, S.S., Sen, A., Krishnamoorthy, A. et al., SN COMPUT. SCI. 3, 400 (2022).
Our research resulted in the creation of a functional route-planning system for emergency services that may be used in a range of applications of electronic driver assistance, including those supplied by online emergency service providers.

WORK EXPERIENCE

PACIFIC CASUALS LTD

City: Chittagong | **Country:** Bangladesh

[01/02/2025 - 31/12/2025]

IT Engineer

- Providing basic IT support (hardware, software, network)
- Installing and maintaining computer systems

- Troubleshooting technical issues
- Assisting with network setup and connectivity
- Helping staff with IT-related problems

SKILLS

Programming Languages

Python | C and C++ | Java | JavaScript

Libraries and Frameworks

PyTorch | Tensorflow | NumPy | Pandas | Scikit-learn | Keras | OpenCV | NLTK | Django | Node.js

PROJECTS

Decentralized Healthcare Network Platform

Using state-of-the-art blockchain technology, we have built a totally decentralized system in which data is saved in our proprietary file system called IHFS, which is entirely protected from data security and integrity concerns.

Link: https://drive.google.com/file/d/1ar7kCCGZfQuFIaHm8sLMmw-Z1xdig1CB/view?usp=sharing

"Object" a Web Based Object Detection Site

Developed a real-time object detection web application using TensorFlow.js and the pre-trained COCO-SSD model. Implemented client-side inference for detecting multiple objects in images/video directly in the browser. Designed an interactive UI using JavaScript, HTML, and CSS for live detection with low latency and efficient performance.

Link: https://senanindya.github.io/IWP-ObjectDetection-TensorFlow.js/

Offensive Language Identification System

Developed a web-based NLP application to detect offensive language using the OffensEval (SemEval 2019 Task 6) dataset. Built the system with Flask (backend) and HTML, CSS, and JavaScript (frontend), allowing users to submit text or upload files for analysis. Implemented and compared Naive Bayes and LSTM models, achieving 71% and 75% accuracy respectively. Evaluated performance trade-offs between speed (0.01s for Naive Bayes) and accuracy (LSTM), improving overall model selection and system efficiency.

Link: https://github.com/senanindya/Offensive-Language-Identification-System

Comparing word search technique between Sequential and Parallel Method

Developed and evaluated word search algorithms for large text datasets using C/C++ and OpenMP, implementing both sequential and multithreaded approaches. Designed a parallel solution to process multiple files concurrently, significantly reducing execution time (1.34s to 0.10s). Analyzed performance, scalability, and efficiency, demonstrating clear speedup and improved resource utilization in the parallel model.

Link: https://drive.google.com/file/d/1QCo7XpEx-v1kOsv3Ogmwrfii547acZPH/view?usp=sharing

Real-time 3D Product Display and Demo using ARCore

Developed an Android application using Java and ARCore to enable real-time 3D product visualization in augmented reality. Implemented markerless AR to place and interact with virtual objects in a real-world environment. Designed an interactive user interface

for seamless product demonstration, enhancing user engagement and visualization experience.

Efficient Image Encryption Algorithm

Developed a Python-based image encryption system using matrix manipulation techniques to transform pixel values and secure image data. Implemented reversible encryption–decryption processes ensuring data integrity while maintaining low computational overhead.

Detection of Motorcyclists and Construction worker without Helmet from Live Surveillance Video

Developed a real-time surveillance system using YOLO-based CNN models to detect individuals without helmets in live video streams. Implemented object detection to identify motorcyclists and construction workers, followed by classification to determine helmet usage.

Detecting and Tracking Irregular Objects Based on Their Shape and Color In Real-Time

Developed a computer vision system to detect and track irregularly shaped objects in real time using OpenCV and NumPy. Implemented color-based segmentation and contour detection to identify objects, followed by tracking across video frames.

Garage Management System

Developed a garage management system in C++ to simulate resource allocation and prevent deadlock scenarios in operating systems. Implemented synchronization and deadlock avoidance techniques to manage vehicle servicing efficiently. Demonstrated concepts of resource sharing and process coordination.

Pharmacy Management System

Developed a database-driven web application using PHP, MySQL, and HTML to manage pharmacy operations. Implemented features for inventory management, billing, and record keeping, enabling efficient tracking of medicines and transactions. Designed a structured database to ensure data consistency and reliable system performance.

Servo Motor Speed Monitor

Developed an IoT-based servo motor speed monitoring system using Proteus for circuit simulation and Blynk for real-time data visualization. Implemented virtual sensors and microcontroller logic to measure motor speed and transmit data to a cloud interface for remote monitoring and control.

Link:
https://drive.google.com/file/d/1RFC6pAluzGtdUZBfvLBRQaAy4vUyVzdx/view?usp=sharing

Telemedicine and Monitoring App for Elderly People

Conceptualized a telemedicine and remote monitoring solution as part of a Lean Startup project, focusing on elderly care. Designed system architecture, conducted cost analysis, and developed marketing and go-to-market strategies. Created a detailed blueprint and prototype design to demonstrate feasibility and user workflow

HONOURS AND AWARDS

Government Scholarship for Secondary School Certificate Examination Awarding institution: Board of Intermediate & Secondary Education, Chattogram

Government Scholarship for Junior School Certificate Examination. Awarding institution: Board of Intermediate & Secondary Education, Chattogram

Obtained 2nd position in Chattogram Board

Achieved awards from various drawing competitions

NETWORKS AND MEMBERSHIPS

[01/12/2018 - 15/12/2020] **IEEE Power and Energy Society (IEEE PES), VIT Chapter** VIT, Vellore

Core Committee Member

- Conducted Workshops on: Machine Learning, MATLAB.
- Represented in: Gravitas 2019 and Riviera 2019.

CERTIFICATIONS

[Coursera] **Advanced Algorithms and Complexity**
Link: https://www.coursera.org/account/accomplishments/certificate/RP86FMP663UJ

[VIT Online learning Institute (VITOL)] **Essential of Machine Learning**
Link: https://drive.google.com/file/d/17rvHFrX9IkukdSvXu6TuWmyR84SK1w5Y/view

[VIT Online learning Institute (VITOL)] **Logistics and Supply Chain Management**
Link: https://drive.google.com/file/d/1n7hUF1nnrcoOzlL17eqkjK92jevW3ASq/view

[VIT Online learning Institute (VITOL)] **Marketing Management**
Link: https://drive.google.com/file/d/1sTio1i5xzckSIOyHbCsqMWPTNo_3J52X/view

[Coursera] **Web Application Technologies and Django**
Link: https://www.coursera.org/account/accomplishments/certificate/7J499RQXYTMK

[Coursera] **Fundamentals of Parallelism on Intel Architecture**
Link: https://www.coursera.org/account/accomplishments/certificate/88VLR679RXSA

[Coursera] **The Arduino Platform and C Programming**
Link: https://www.coursera.org/account/accomplishments/certificate/NEERAPR7PRF8

LANGUAGE SKILLS

Mother tongue(s): Bengali

Other language(s):

English

LISTENING: C2 **READING:** C2 **WRITING:** C1

SPOKEN PRODUCTION: C1 **SPOKEN INTERACTION:** C1

Italian

LISTENING: A1 **READING:** A1 **WRITING:** A1

SPOKEN PRODUCTION: A1 **SPOKEN INTERACTION:** A1