RITWIK DALMIA

EDUCATION

GRADUATION
B.S Data Science |Sri Sri University , Cuttack , Odisha | Batch 2020-2023 | 89.10 %

INTERMIDIATE
Science 12th|Sherwood Convent School , Gurugram, Haryana| Batch 2019-2020 | 82.10 %

MATRICULATE
10th|Sherwood Convent School , Gurugram, Haryana| Batch 2017-2018 | 73 %

EXPERIENCE

RESEARCH INTERN |NIT KKR, IITD-IHUB, ON-SITE | 20/06/2023- 20/10/2023
- Multilingual and Culturally Customized Knowledge Management for Legal Information Processing and Management
- **Tech Stack:** NLP , Transformers Models , Data analytics , Data engineering , Google Colab , Python

SMILE WELLNESS FOUNDATION| PUNE ,REMOTE| 11/2021 – 05/2023
- Build an interactive web portal providing a platform to help Unprivileged students by encouraging them specially designed DIY kits.
- Integrated Automatic Emails for newsletters, sign up, and Events. Integrated Razor pays Payment Gateway with database and integrated Ship rocket.
- **Tech Stack:** Html5 , CSS , JavaScript , Bootstrap , PHP , Ajax

USG FULL STACK DEVELOPER |SSUIMUN, ON-SITE | 01/08/2020- 01/03/2022
- Build an interactive web portal providing a platform for hosting MUN (simulation of the united nation)
- **Tech Stack:** Html5 , CSS , JavaScript , Bootstrap , PHP

PROJECTS

BUILDING STUDENT PORTAL FOR COLLEGE| 05/2022 – 07/2022
- Building a student portal for the easy management of data, and documents with an Admin Panel for departments, faculties, students and staff.
- **Tech-Stack:** HTML, CSS,PHP, Bootstrap

APPLICATION TO MANAGE ACCESS CONTROL TO A DEFINED SET OF APPLICATIONS BASED ON USER PROFILE| 03/09/2022-04/09/2022|
- This project has been developed within **36 hours** at **SERB-INAE HACKATHON 2022,Jadavpur University, WB, On-Site (Finalist)**
- Secure registration and login portal for users and admins
- Users can request admin to access an application
- Admin can revoke access in the run-time
- Admin can grant permission to access certain applications
- **Features**
  - Email Verification , Password Hashing , Disable Profile , 2 Step Authentication
  - IP Address Authentication , Session Time-Out
- **Tech-Stack:** HTML, CSS , PHP, Bootstrap

SMART WASTE MANAGEMENT SYSTEM|24/09-2022 – 28/09/2022
- Pioneered a cutting-edge Smart Waste Collection System, transforming urban solid waste management.
- Developed a user-friendly dual-interface system for citizens and municipal authorities
- Enables citizens to effortlessly segregate various types of waste for disposal.
- Empowers municipal authorities with streamlined and efficient waste collection processes.
- Enhances environmental sustainability and public health through improved waste management.
- **Features**
  - **User Panel:-** Gmail authentication with password encryption , Email verification for user security , Advanced garbage pickup requests , Integrated ticket system for user complaints , User profile updates , including address information , Detailed history of garbage pickup requests (completed, ongoing , upcoming)
  - **Admin Panel:-** User management , Account enable/disable , Service request management , Authorization of requests , Garbage category management , Service availability control , Vehicle management (unique IDs, capacities, garbage types) , Slot time management , Driver Details , Route scheduling , Complaint resolve (within 24 hours)
- This project has been developed within **72 hours** at **Innerve Hacks 2022 (Finalist) at IGDTUW,Delhi**
- **Tech-Stack:** HTML, CSS , PHP, Bootstrap

CONTACT INFORMATION

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PUBLIC PROFILE

Kaggle - ritwikdalmia
Hackerrank - dalmiaritwik
Leetcode - ritwikdalmia

SKILLS

PROGRAMMING LANGUAGES
 C | C++ | Java | Python
WEB DEVELOPMENT
HTML5 | CSS3 | JavaScript |Jquery |React
DATABASES AND CLOUD PLATFORMS
SQL | Firebase |PHP | Google Cloud Platform |
FRAMEWORK
Bootstrap 5.0 | TailwindCSS
MACHINE LEARNING
Numpy | Pandas |Matplotlib | Seaborn | Scikit Learn | Open CV | Scipy | Jupyter |
NLP
Transformers Models
SOFT SKILLS
Active Communication | Collaboration with peers| Evaluating Projects | Mentoring Students

PUBLICATIONS

A SYSTEMATIC LITERATURE REVIEW ON TEST SUITE MINIMIZATION | MAY 2022
- **Source:** International Health Informatics Conference

ARTIFICIAL INTELLIGENCE (AI) ON A RISE IN HEALTHCARE| BOOK CHAPTER| FEBRUARY 2023
- **Source: Machine Learning in Healthcare and Security (Publishing)**

COURSES AND CERTIFICATIONS

- **ANVESHAN National Zone (certificate) - 2023**
- **Wells Fargo IIT Madras Runner Up (certificate) - 2023**
- **ANVESHAN Central Zone 3rd (certificate) - 2023**
- **INNERVE HACKS Hackathon (certificate)- 2022**
- **SERB-INAE Hackathon (certificate) - 2022**
- **IHIC Springer (certificate) - 2022**
- **Python For Data Science (EDX) – 2022**
- **Robotics with sensors (BoltIoT) – 2020**
- **Artificial Intelligence With Deep Learning (ONE FOURTH LAB IIT Madras) – 2019**
- **Databases for Developers: Next Level (Oracle) – 2018**
- **Visual Programming Language (Scratch) – 2016**

ACADEMIC ACHIEVEMENTS

TEAM LEADER | WELLS FARGO HACKATHON - IIT MADRAS| RUNNER-UP

1. **In Round-1, Build Fraud detection system using SQL and PHP ,**
- Designed and build Data model to track and alert fraud immediately.
- continuously check bank statement transactions debit/credit.
- Generated report and send alert to customers and bank representative (via SMS/push notification/email).
  - More than 2 payments to the same vendor/payee.
  - Alert for international bank transactions.
  - More than 4 transactions on different accounts using same device(by detecting token ids/ip address same).
  - Net banking account password change verification/ more than 4 wrong password attempted.
  - Transferring unusually large amounts to any account via Net-banking. Higher transaction of more than 1k USD per day – via online payment/shopping apps.

2. **In round-2 ARIMA Time Series Forecasting model**

- Successfully forecasted call volume for Wells Fargo's credit card call center operations, improving call center efficiency and customer service.
- Categorized and cleaned data related to three distinct credit card types: Commercial Card, Retail Card, and Student Card.
- Utilized machine learning and artificial intelligence techniques to create accurate time series forecasting models, optimizing staffing levels and reducing abandoned call rates.
- Collaborated with cross-functional teams to incorporate exogenous variables, ensuring more precise call volume predictions.
- Achieved a top-tier Mean Absolute Percentage Error (**MAPE**) score, indicating a high level of forecasting accuracy.

TEAM LEADER | ANVESHAN CENRTAL ZONE - AIU| THIRD(MINOR PROJECT)

- **Objective: Object Distance Measurement Detection With Real-Time Camera For Surveillance Mechanism**
- **Method:** Utilize OpenCV and the Haar Cascade Classifier for real-time object distance estimation.
- **Advantages:** Haar Cascade Classifier offers unique benefits compared to newer technologies like Yolo and CNN.
- **Key Features:** Achieved accuracy exceeds 98% in distance measurement, even at a 90-degree angle.
- **Minimal Calibration:** Requires minimal calibration for static and non-static cameras.
- **Application:** Useful for solving real-world problems and enhancing surveillance mechanisms.

TEAM CO-LEADER | ANVESHAN NATIONAL ZONE - AIU| THIRD(MAJOR PROJECT)

Object Distance Measurement Detection With Real-Time Camera For Surveillance Mechanism
- **Highly Adaptable**
  - Easily customizable to meet specific requirements.
- **Non-technical Friendly**
  - Minimal technical knowledge required for setup and use.
- **Lightweight**
  - Requires minimal processing power, cost-effective.
- **Multi-Platform**
  - Available on various platforms:
    i. Host Computer (Wired)
    ii. Mobile Device (Wireless)
    iii. Hyper-Cost Efficient IoT-Embedded System (Wireless)
    iv. Web-Based Platform (Wireless)
- **Live**
  - Real-time functionality for immediate data access and interaction.

VOLUNTEERING

ENCOUNTER HOUSE CAPTAIN |SHERWOOD CONVENT SCHOOL | 04/2018 – 06/2019

- Served as ENCOUNTER House Captain at Sherwood Convent School from 04/2018 to 06/2019.
- Organized and managed multiple events, including inter-house competitions, cultural programs, and sports events.
- Led student recruitment efforts and motivated participants, fostering a sense of teamwork and enthusiasm within the house.

ECO CLUB MEMBER |Sherwood convent School | 04/2018 – 06/2019

- Actively participated in environmental initiatives as a member of the Eco Club.
- Played a crucial role in tree planting and environmental cleaning activities to promote sustainability.
- Successfully campaigned for a Diwali crackers-free and eco-friendly celebration, raising awareness and fostering a greener community.

CURRENT RESEARCH

AI TRISM (NIT KKR)
- Engaged in research on AI TRISM (AI Trust, Risk, Security Management).
- Focusing on the integration of responsible AI, Explainable AI, trustworthy AI, and Ethical AI to enhance the development and deployment of artificial intelligence systems.
- Investigating ways to ensure the ethical use of AI, mitigate risks, and build trust in AI technologies for a more secure and transparent AI landscape.