ANURAG DILIP GORKAR

+1-9195211316 | adgorkar@ncsu.edu | linkedin.com/in/anurag-gorkar | github.com/AnuragGorkar | adgorkar.vercel.app

Education:

North Carolina State University, Raleigh, NC || Master of Computer Science *(Expected) 08/2024 – 05/2026*

Courses: Automated Learning and Data Analysis, Software Engineering, Object Oriented Programming *CGPA:3.87/4*

Pune Institute of Computer Technology, Pune, India || BE Computer Engineering *05/2018 – 05/2022*

Courses: Computer Networks, Operating Systems, Data Structures, Web Technology, Database Systems *CGPA:9.6/10*

Skills:

Languages & Frameworks: Python, R, C++, Java, Kotlin, Dart, SQL, JavaScript, HTML, CSS, Ruby, Type Script
Tools & Platforms: Databricks, Jupyter, Anaconda, Tableau, MS Excel, Selenium, Apache Airflow, GitHub
Big Data & Data Bases: Apache Spark, Hadoop, MongoDB, MySQL, PostgreSQL, Cassandra, Apache Kafka
ML Frameworks: TensorFlow, PyTorch, Keras, Scikit-learn, PySpark, Hugging Face, OpenCV, NLTK
Web & Application Development: Flutter, Android Studio, Node.js, React, Angular, Flask, Django, RESTful APIs

Work Experience & Internships:

Unit Manager: PL Data Science, Bajaj Finserv Ltd., *Pune, India* *07/2022 – 07/2024*

- ***Propensity Model:*** Developed and deployed an **XGBoost** model within an **MLflow**-managed **Databricks** pipeline to predict personal loan acquisition, boosting conversion rates by 57% through efficient data processing with SQL and **PySpark.**
- ***Risk Scoring Model:*** Built a **deep learning regression model** to identify high-risk customers, reducing bad debt by up to 2%. Performed roll rate and vintage analysis and optimized performance through stepwise selection and WoE transformation.
- ***Survival Analysis****:* Executed survival analysis to accurately forecast 12-month loan default probabilities, leveraging Kaplan-Meier estimators and Cox regression to analyze and quantify borrower risk factors, improving risk assessment precision by 15%.

Data Engineering and Research Intern, ASAR, Pune, India *06/2021 – 02/2022*

- Engineered a pipeline using **R** and Google Earth Engine to generate minimum travel time maps for healthcare access, based on Weiss et al.'s accessibility indicators, enhancing data processing efficiency by 20%.
- Spearheaded population-level geographic health access analysis in **Python** and R, presenting key findings at the Consortium of Universities for Global Health (CUGH) 2022, improving stakeholder engagement by 25%.

Software & Research Intern, Defence Research & Development Organization, Remote *07/2020 – 09/2020*

- Designed a deep learning framework using **TensorFlow** to detect steganography in images and automated the analysis of HEX and EXIF data with Python scripts, increasing detection accuracy by 30%.
- Developed a secure, user-friendly web interface with **React** for image uploads, reducing upload time by 40%. Implemented **Flask** to handle API requests and processed images in a secure **Docker** environment with sandboxed containers, enhancing system security.

Projects:

CoviCare: A Secure Vitals Collection and Diagnosis Application ***Flutter | IoT | Tensor Flow| Firebase | SQLite***

- Designed and developed a Raspberry Pi-based embedded device to capture and securely transmit patient vitals to a mobile application. Implemented a CNN and a U-Net-based image segmentation model in the mobile application for Covid-19 diagnosis based on uploaded CT scans.
- Employed machine learning and ANN's to analyze cough sounds and generate a Covid-19 susceptibility score.

SOS: Emergency Car Accident Care System ***Python | Raspberry Pi | React JS | Java (Android) | Fire store***

- Developed a Raspberry Pi-based SOS accident detection and alarm system using a gyroscope, accelerometer, and GPS. Integrated real-time Firestore database to trigger alerts, sent to emergency contacts via a smartphone app.
- Utilized Google Maps API to notify nearby hospitals and police stations, with a GSM module for SMS alerts in areas without internet connectivity.

Publications:

CoviCare: Secure Covid-19 Vitals Diagnosis and Disease Identification Application
18th International Conference on Data Science (ICDATA) *07/2023*

Correlations of Rural-Urban Differences in Geographic Healthcare Access Coverage and other Access measures: An Ecological Study of 128 Countries
Consortium of Universities of Global Health (CUGH) *03/2022*

Intensive Image Malware Analysis and Least Significant Bit Matching Steganalysis
IEEE International Conference on Big Data 2020 *12/2020*

Interests: Reading | Cricket | Swimming | Trekking ***Languages: English | Hindi | Marathi***