NITESH MISHRA
Raleigh, NC | +917666447366 | nmishra4@ncsu.edu | LinkedIn | GitHub

EDUCATION

North Carolina State University — **Raleigh, North Carolina**
Masters of Computer Science — *Aug 2022 – May 2024*
Coursework: Design and Analysis of Algorithm, Artificial Intelligence-I, Automated Learning and Data Analysis

Thakur College of Engineering and technology — **Mumbai, India**
Bachelors of Engineering in Computer Engineering (CGPA: 9.50 / 10.0) — *Aug 2018 - June 2022*
Coursework: Data Structures and Algorithms, Design and Analysis of Algorithms, Database Management System, Object Oriented Programming, Python Programming, Software Engineering, Data Science Machine Learning, Deep Learning.

TECHNICAL SKILLS

Programming Languages:	Python, SQL, R, C, C++, Java, JavaScript
Databases:	MySQL, SQLite, Oracle, MongoDB, Firebase
Tools/Frameworks:	Git, Pandas, Numpy, Flask, FastAPI, Keras, OpenCV, TensorFlow, Docker, Kubernetes, AWS, Amazon S3, GCP, Jupyter, Hadoop, PySpark, Kafka, Heroku, Colab, PowerBI.
AI and Machine Learning:	Machine Learning, Computer Vision, Natural Language Processing, Data Visualization, Audio Analysis, Statistical Modelling, Predictive Analysis, Time Series Analysis.

EXPERIENCE

Data Science Wizards — **Mumbai, India**
Software Developer (Data Science) Intern — *November 2020 – May 2022*

- **Designed and developed** UnifiAI, a **PaaS** solution deployed on kubernetes which helps to build, **orchestrate** and leverage AI capabilities for use cases across the organizations and **increase the efficiency by 50%.**
- Implemented core backend python scripts to **automate** the entire data engineering, model building, model serving and inference phase. This resulted in **reducing the deployment time by 70%**.
- Analysed the trends and insights from **25 million data points** of shopping items from multiple inventories. Built a scalable demand forecasting algorithm using **GluonTS** library for forecasting the sales of items.
- Worked on developing Video Consent Analysis system with features like **Face recognition, Anti Spoofing detection,** and **Speech Recognition** for more than **1 lakh** users of an insurance organization with the **low latency.**

Wurth IT — **Mumbai, India**
Machine Learning Intern — *March 2020 - October 2020*

- Researched and developed an Optical Character Recognition engine using deep learning framework to extract information from government documents like Aadhar Card, Passports, Pan card, etc. It enhanced the **efficiency by 60%** of the conventional screening procedure.
- Led the pipeline team in easy deployment and maintenance of application as API service on **AWS cloud** which allowed **more than 1000 users** use the service per day.

ACADEMIC PROJECTS

Meddaan (*Python, CNN, Flask, OCR)*

- Built a platform for users and NGOs to collaborate and donate medicine, track donations and collections. Aimed at better security by validating the user data with help of **deep learning model.**
- Trained the CNN (Convolutional Neural Network) classification model with accuracy of 95% as evaluation metrics to verify the medicinal image.
- Awarded the best project at university computer science department level, 2022.

Automation of Society Security task (*Python, Flask, Keras, Transfer Learning, Facenet, MySQL, AWS)*

- Led the team of 4 and developed an **end-to-end real-time** face recognition product with anti-spoofing detection, which aimed to solve the security aspects of the societies.
- This product automated the security check at the society gate by 75%. Applied transfer learning on **Facenet model architecture** to retrain the model on custom Indian face datasets.
- Performed linear scan for facial verification which calculates the **cosine similarity distance metric** between the currently calculated face embedding and from the embedding database.

Regression Analysis using Machine Learning (*Python, Selenium, Scikit-learn)*

- Created a dataset of crop yields in India using **web scraping** from multiple websites and open-source platforms.
- Compared the performance of 5 different algorithms like Decision Tree Regressor, Support Vector Regressor, Random Forest Regression, and XGBoost on the dataset. Used evaluation metrics such as Mean Absolute Error (MAE), $R2$ Score and Root Mean Squared Error (RMSE) for evaluating models.

ACCOMPLISHMENTS

- Published paper in IRJET journal on "Comparative Study of Biometric Techniques", July 2021 which discusses the various biometric data breach as well as pros and cons of multiple biometric techniques like fingerprint, facial, iris.
- Top 10 in Smart India Hackathon (SIH 2019) and Capgemini Tech Challenge with project of "AI Healthcare Chatbot", which provide user answer related to health queries.
- Volunteered in EWT (Extension Work Team) and teached underprivileged small children's, performed social activities.