Nikhil. Premachandra **Rao**

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EDUCATION

University of Massachusetts - *Dartmouth, MA* Aug 2023 - May 2025
Master of Science (M.S), Data Science GPA 3.9

Siddaganga Institute Of Technology - *India* Aug 2016 - May 2020
Bachelor of Engineering (B.E), Computer Science, GPA 3.7

WORK EXPERIENCE

Oracle Cerner | Data Scientist / Production Software Engineer - *India* 01/2020 - 06/2023
- **Data Analysis :** Performed in-depth analysis of client systems to identify key patterns and trends, using SQL, Python, and data visualization techniques, leading to actionable insights that enhanced decision-making for stakeholders.
- **Automation and Optimization of Data Processes**: Engineered scripts in Python to streamline data pipelines and reporting, reducing manual efforts by 25%, which improved data accuracy and operational efficiency.
- **Predictive Modeling and System Optimization**: Developed predictive models leveraging historical data and machine learning to enhance fault detection accuracy by 40%. Automated HBase table cleaning and management, reducing storage costs by 10% and improving data retrieval speed for client reports. Streamlined complex SQL query generation, cutting manual preparation time by over 2 hours per week for large datasets.
- **Real-Time Reporting with Automated Tools**: Led the development of an automated JIRA report system, enabling real-time issue tracking and enhancing the visibility of key performance indicators (KPIs) for data-driven decision-making.
- **Comprehensive Data Catalog and Client Analysis**: Established comprehensive data catalog reports for over 2500 clients, incorporating filtering, sorting, and searching capabilities, which enhanced client data management by 30%.

Oracle Cerner | Software Engineer Intern - *India* 01/2020 - 06/2020
Automated Pipeline Command Generation with ACDC Services
- Created a web application for generating pipeline commands using ACDC services, streamlining command creation, reducing manual effort and error by 70%, and enhancing security with MAC address licensing and encrypted keylogging.

ACADEMIC PROJECTS

University of Massachusetts - *Dartmouth, MA* Oct 2024 - *Present*
AUTO ML API Development,
- Construct 30% of an API automating machine learning model creation and tuning, using Python, Flask, and Scikit-learn, with scalable deployment via Docker and Kubernetes. Executed model selection and hyperparameter tuning, minimizing. Achieved 25% reduction in manual tuning time, with plans for integration of interpretability tools. and tracking.

PREDICT DIABETES,
- Designed a regression model with 72% accuracy rate. Demonstrated proficiency in data preprocessing, feature engineering, statistical analysis, and predictive modeling. Enhanced deployment efficiency by utilizing Docker and Kubernetes, lowering the error rate from 37.04% to 2.75% through strategic automation and performance optimization.

Siddaganga Institute Of Technology - *India* Jan 2020 - Jun 2020
NEWSIFY (NEWS CLASSIFICATION),
- Developed a machine learning algorithm to categorize news efficiently and optimized it with AI techniques. Utilized Docker and Kubernetes; the framework, including Kube automation, increased scalability by 41% with cost efficiency.

CERTIFICATIONS

- **Supervised Machine Learning: Regression and Classification** June 2024
  DeepLearning.AI, Stanford University - Credential ID: MCQEAHC8LAGS
- **Advanced Learning Algorithms** Sept 2024
  DeepLearning.AI, Stanford University - Credential ID: WN99E17LTHMI
- **Supervised Machine Learning: Regression and Classification** Dec 2024
  DeepLearning.AI, Stanford University - Credential ID: IGZ9WVSUZCYZ

PROFESSIONAL SKILLS

- **Programming Languages**: Python, R, Java, C, C++, VB, Shell, Ant, Ruby.
- **Data Science & ML Tools**: PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Flask, PowerBI, Data Models.
- **Data Analysis & Visualization**: Exploratory Data Analysis (EDA), Data Visualization, Data Cleaning and Preprocessing.
- **Mathematics**: Advanced Mathematical Statistics (Statistical Modeling, Hypothesis Testing, Reg Analysis), Linear Algebra.
- **Big Data Technologies:** Hadoop, HDFS, MapReduce, Kafka, Hive, Avro, Oozie, Hue, chops (**C**erner **H**adoop **OP**eration**S**).
- **Cloud & DevOps**:AWS (EMR, Step Functions, S3, Lambda, CloudWatch, IAM),Docker,Kubernetes,Jenkins,Spinnaker,CI/CD.
- **Databases:** SQL Server, Oracle, HBase, Basic knowledge of Firebase, MongoDB
- **Tools and Platforms**: JIRA, Git, IntelliJ, Postman, Maven, Gradle, Splunk, Deep learning, data mining, data analytics, ETL.
- **Soft Skills:** Communication skills, teamwork, Critical Thinking, strategic planning, problem-solving, and adaptability.