DOLLY MOULEKHI

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SUMMARY OF SKILLS AND QUALIFICATIONS

Operating Systems │ Windows • Linux • Mac
Programming Languages │ Python, SQL, HTML, CSS, NoSQL(MongoDB), C++
Machine Learning │ Sci-kit-learn • MLflow • HyperOpt • Recommendation systems • Model deployment • Model Evaluation
Data Visualization │ Tableau • Plotly • Matplotlib • Seaborn • PowerBI • Google Data Studio
Big Data Technologies │ Spark • Apache Kafka
Web Scraping │ BeautifulSoup • Scrapy • Selenium
Text Mining │ Natural Language Processing (NLP) • SpaCy
Geospatial Analysis │ GIS (Geographic Information Systems) • GeoPandas
Cloud Computing │ Amazon Web Services (AWS) • Google Cloud Platform (GCP)
Version Control │ Git • BitBucket
Text Mining │ Natural Language Processing (NLP) • SpaCy

EDUCATION

Master of Engineering – Mechanical Engineering (Expected)   **2023-2025**
Concordia University, Montreal, QC
- Doing Specialization in Industrial Control Systems
- **Relevant course work:** Robotics, Industrial Automation, MicroProcessors and Application, Electrical Engineering

Bachelor of Engineering – Mechanical Engineering   **2016- 2020**
Uttarakhand Technical University, Dehradun, India
- **Relevant course work:** Robotics, Strength of Materials, Thermodynamics, Fluid Mechanics

WORK EXPERIENCE

Teaching Assistant (TA)   **Jan 2024 - present**
Electronics for Mechanical Engineers, Concordia University, Montreal, Quebec.
- Led laboratory sessions covering topics such as DC motors, modular design, and flip flops.
- Demonstrated expertise in testing electronic components (resistors, capacitors, batteries, diodes) using multimeters.
- Assisted students in understanding electric motor drivers, integrated circuits, and potentiometers in electronic systems.

Teaching Assistant (TA)   **Jan 2024 - present**
Computer Integrated Manufacturing, Concordia University, Montreal, Quebec.
- Provided comprehensive instruction on the operation and management of the OpenCIM system, CNC milling stations, and CNC turning centers, ensuring students gained practical knowledge through interactive sessions.

- Facilitated learning in system integration and optimization, empowering students with practical skills to streamline manufacturing processes and enhance efficiency in real-world applications.

Data Scientist   **May 2021 – August 2023**
Better Place Safety Solutions, Bengaluru, India
- Developed a recommendation system for the rocket application that increased the click-through rate by 40%.
- Generated job recommendations for more than 20 million blue-collar workers.
- Conducted statistical analysis to determine the key factors influencing application rates, utilizing statistical analysis techniques and correlation matrices to identify features directly correlated with application creation, resulting in a 10% increase in application rates.
- **Technologies used:** Python, Scikit Learn, Numpy, Pandas, Docker, EC2, Machine learning, LightGBM, MLFlow, HyperOpt.

Data Analyst Intern   **Feb 2021 – May 2021**
Better Place Safety Solutions, Bengaluru, India
- Created sales dashboards representing end-to-end information about leads.
- Created daily reports about KPIs (Key Performance Indicators) for the company.
- Analyzed data from the campaign run to understand the drop-in funnel report.
- Technologies used: Numpy, Pandas, Google Data Studio, PowerBI

PROJECTS

Autonomous Robot Development Project
- Led the development of an autonomous robot using C++ programming language.
- Implemented image processing and control algorithms for object detection, navigation, and collision prevention.
- Designed attack and defense mechanisms enabling the robot to engage opponents and protect itself, contributing to advancements in autonomous robotics.

HIL Car Simulator with Arduino Controller Board
- Designed and Implemented Car Simulator: Contributed to the development of a Hardware-in-the-Loop (HIL) Car Simulator at Concordia University, leveraging Arduino as the central controller board.
- Engineered Control Systems: Developed traction, braking, steering, and speed control mechanisms to simulate realistic car behavior, focusing on accuracy and responsiveness to enhance the authenticity of the simulation.
- Employed register level programming techniques to optimize the performance and efficiency of the Arduino controller board.

Smart Material Selection for Enhanced Aerospace Performance: A Machine Learning Approach
- This project aims to enhance material selection by recommending the most suitable composite materials for specific applications.
- It classifies materials based on key mechanical properties
- Technologies used: Classification algorithm, SVM, Random Forest Classifier

Advanced screw defect detection
- Trained a classification model for determining defective and non-defective screws.
- Technologies used: Python, SVM model, Image Processing

VOLUNTEER WORK / EXTRA-CURRICULAR ACTIVITIES

Image Analysis   **July 2019 - Aug 2019**
NASA/Pan-STARRS
- Analysis of images captured by pan-starrs by using the software Asterometrica for searching new asteroids by using particular criteria for knowing whether the moving object is an asteroid or some kind of anomaly.

International Space Apps Challenge
NASA
- Built an application for informing localities of rural areas about nearby fire scenarios.

AWARDS & RECOGNITION

- Received 'Star Performer' award for building a recommendation system and implementing it to the Rocket app.
- Received recognition for valuable contributions in observing near-Earth objects and Main Belt asteroids by analyzing the images from Pan-STARRS.
- Secured 1st position in National Aeronautical Olympiad and was among the top 500 students nationally out of 100k+ Students.