Kushal Bhattarai

Data Engineer Associate Trainee

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Data Engineer Associate Trainee with a focus on handling data and ETL. Skilled in Python, SQL, Pandas, Numpy, and AWS. I have practical experience in creating and improving ETL pipelines. I'm enthusiastic about using technology to make working with data easier and to support data-based decision-making.

PROJECT EXPERIENCE

Application of Computer Vision in Robotic Arm

- Developed and implemented a computer vision-controlled robotic arm model for large-scale industrial applications.
- Applied data preprocessing techniques, including image conversion to Hue, Saturation, and Value (HSV) format, Histogram Equalization, Circular Hough Transform (CHT), and Canny Edge Detection, to optimize object detection processes.
- Identified that color processing is ideal in stable lighting conditions, while CHT serves as a robust alternative in challenging scenarios, showcasing adaptability and data-driven decision-making in the context of computer vision.
- Employed linear regression with gathered data to fine-tune constant values, highlighting a data-driven approach to improve system accuracy and efficiency.
- Published the findings in the 13th IOE Graduate Conference proceedings. (ISSN: 2350-8914 (Online), 2350-8906 (Print))

WORK EXPERIENCE

Data Engineer Associate Trainee, Fusemachines
2023 - Present

- Achieved proficiency in intermediate-level Python and SQL through internal training programs.

- Developed fundamental insights into AWS during training, which included practical experience with Lambda functions and S3 bucket operations.

- Acquired essential knowledge of Project Management principles.

- Gained a foundational understanding of Software Testing concepts.

- Gained basic level understanding of Data Security and Compliance concepts

SKILLS

- **Programming Language:** Python
- **Libraries:** Pandas, NumPy, Matplotlib
- **Framework:** PySpark
- **Database:** PostgreSQL, MySQL
- **Cloud Deployment:** AWS(S3, Lambda, RDS, EC2)
- **Version Control System:** Git

TRAININGS

- KAGGLE: PANDAS
- KAGGLE: ADVANCED SQL
- KAGGLE: DATA CLEANING

EDUCATION

- **Masters of Science in Computer Engineering Specialization in Data Science and Analytics**
  Pulchowk Campus, TU
  2023 - Ongoing

- **Bachelors of Engineering in Electronics and Communication Engineering**
  Purwanchal Campus, TU
  2022

- **Higher Secondary (+2) in Science**
  Delhi Public School, CBSE
  2017