Srijana Raut
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EDUCATION

Master of Science in Computer Science
Graduate Assistant (GRA) Award — GPA: 4.0/4.0

University of South Dakota, USA
Graduated: 2023

Bachelor of Science in Computer Science and Information Technology
Scholar Batch Topper — Scored 78.98%

Tribhuvan University, Nepal
2016 – 2019

PROFESSIONAL EXPERIENCE

- **Big Data Engineer** — *Jan 2024 – May 2025*
  H1 Insight Inc. — **New York, NY**
  - Designed and developed scalable ETL pipelines using Big Data tools like Apache Spark (PySpark) for data transformations and aggregations, Apache Kafka for real-time data ingestion, and AWS Athena for querying large datasets.
  - Utilized Big Data file formats such as Parquet, JSON, and Hudi for efficient storage and processing; employed Argo Workflows and Kubernetes for automation and distributed pipeline management.

- **Data Science Intern** — *May 2023 – Aug 2023*
  AI Camp — **California, USA**
  - Designed and implemented a robust scraping pipeline using LLM (GPT-3.5 turbo) with LangChain framework to efficiently extract dynamic HTML content from the school's website, resulting in the acquisition of approximately 70,000 unique faculty staff's information.
  - Mentored high school students in the Natural Language Processing (NLP) course.

- **Graduate Teaching/Lab Assistant, Secretary at 2AI Club** — *Aug 2022 – Dec 2023*
  University of South Dakota — **South Dakota, USA**
  - Led labs for Java and Python programming courses; contributed to designing lab assignments, quizzes, and exercises in Data Mining, Pattern Recognition, and Machine Learning.
  - Only female graduate student in the 2AI Club cohort. Member page:
    https://2ai-lab.github.io/Members.html

- **Machine Learning Engineer** — *Dec 2019 – Jul 2022*
  Fusemachines Inc. — **Kathmandu, Nepal**
  - **AI in Education:** Created 10 courses and 5 projects for 4 colleges on RL, ML, CV, NLP, and DL topics. Trained 3 interns.
  - **AI in Industry:** Built a machine learning-driven product recommendation engine for an e-commerce platform, enhancing product discovery through behavior analysis and real-time feedback, which led to a 40 % increase in average order value and a 25 % improvement in customer retention.

TECHNICAL SKILLS

- **Languages/Tools**: Python, Java, PySpark, SQL, Bash, Git, Linux, AWS, Azure
- **SQL/NoSQL Databases**: Oracle, MySQL, PostgreSQL, PL/SQL, MongoDB
- **ML/AI Concepts**: Supervised & Unsupervised Learning, Optimization
- **Frameworks/Libraries**: PyTorch, TensorFlow, Keras, Scikit-learn, LangChain
- **Visualization & Reporting Tools**: Tableau, Power BI, Matplotlib, Seaborn, Pandas, NumPy

LEADERSHIP EXPERIENCE

- **Secretary at 2AI Lab** — *Jun 2020 – Jul 2022*
  University of South Dakota — **South Dakota, USA**
  - Ensured all club activities(email,workshop, competitions) adhered to university guidelines and helped prepare reports for annual reviews and funding proposals.

- **Mentorship Strategic Manager** — *Jun 2020 – Jul 2022*
  Women Leaders in Technology — **Lalitpur, Nepal**
  - Effectively led a six-month mentorship program pairing 15 fellows with 15 mentors.
  - Authored and disseminated mentorship curriculum through self-driven initiatives tailored to the fellows' growth stages