

SUMEL RATTAN

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EDUCATION

The University of Arizona <i>Masters, Information Science: Machine Learning & AI</i> Coursework – Data Mining, Data Warehousing, Data Science, Neural Networks, Machine Learning, Artificial Intelligence and Data Ethics GPA – 3.9/4.0	Aug 2023 - May 2025 Tucson, USA
Chitkara University <i>Bachelors, Computer Sciences and Engineering</i> GPA – 3.9/4.0	Aug 2019 - Jul 2023 Chandigarh, India

TECHNICAL SKILLS

- **Programming Languages:** SQL, Python, R, Bash/Shell
- **Libraries/Frameworks:** Pandas, NumPy, Matplotlib, Seaborn, Tensorflow, Keras, HuggingFace Transformers
- **Platforms/Services:** Microsoft Power Bi, AWS Cloud Services, RStudio, Jira, Jupyter Notebooks, Github
- **Certifications:**
 - Microsoft Azure Data Fundamentals
 - AWS Foundation: Securing AWS Cloud
 - Microsoft Azure AI Fundamentals
 - Cisco Programming Essentials in Python

WORK EXPERIENCE

Information Designer <i>Interra Systems, Noida, India</i>	Nov 2023 - Jul 2024
<ul style="list-style-type: none">• Improved data processing efficiency by 25% and reduced ETL delays by 30% through streamlined integration with data visualization using Microsoft Power BI.• Streamlined ETL workflows, boosting data processing efficiency by 25% and reducing latency by 30%.• Collaborated with stakeholders to gather visualization requirements, delivering user-centered design improvements that increased engagement by 20%.• Optimized documentation practices by leveraging industry-standard authoring tools such as Adobe RoboHelp, FrameMaker resulting in increased accuracy, clarity, and a 40% improvement in knowledge sharing and team collaboration.	
Backend Engineer <i>eGov Foundations, Bengaluru, India</i>	Apr 2022 - Jul 2023
<ul style="list-style-type: none">• Developed a live dashboard for the MuktaSoft project to enhance real-time data monitoring by 35%.• Authored comprehensive technical documentation and optimized existing code, reducing technical debt by 15%.• Coordinated communication among five cross-functional teams, leading to a 25% reduction in project delays.• Deployed applications on the AWS cloud platform, ensuring scalability and reducing infrastructure costs by 20%.• Earned DIGIT certification, demonstrating a commitment to continuous learning and improving task efficiency.	
Technical Product Manager <i>Computech Systems, Palampur, India</i>	Mar 2021- Jan 2022
<ul style="list-style-type: none">• Led cross-team collaboration through optimized Scrum practices using JIRA, resulting in a 30% increase in delivery speed.• Mitigated security risks by 35% through rigorous testing protocols using JUnit to identify vulnerabilities, thereby enhancing overall application security.• Performed in-depth customer research using Google Analytics to identify key development needs, leading to a 27% improvement in product accuracy.	

PROJECTS

Data Visualization Project: Analyzing Causes for Hospital Readmissions	Aug 2024 - Dec 2024
<ul style="list-style-type: none">• Utilized advanced data analysis techniques, including univariate and multivariate logistic regression, to identify patterns and test hypotheses.• Conducted in-depth research to identify key drivers of hospital readmissions, leveraging out of the box thinking and data insights to inform strategic healthcare solutions.• Discovered a 47.01% hospital readmission rate, with older patients (ages 70-90) and those with circulatory, respiratory, or diabetic conditions at higher risk.• Presented this project at the University of Arizona iShowcase, an event celebrating innovative research, and engaged with peers and faculty to discuss findings and impact.	
Offensive Language Identification in Social Media	Mar 2024 - Apr 2024
<ul style="list-style-type: none">• Developed and implemented a robust data preprocessing pipeline that ensured data integrity and bias mitigation, reducing redundant tasks for the analytics team by 40%.• Led the development and refinement of predictive models by integrating Sentiment Analysis to enhance model robustness, addressing vulnerabilities that could lead to biased or unsafe outputs.• Optimized AI model workflows using Pandas, Scikit-learn, and BeautifulSoup, improving operational efficiency by 35% while implementing secure data handling practices to protect sensitive information.	