

NAGRAJ DESHMUKH

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PROFILE

- Technical Skills: Python, R, SQL, Statistics, Business Analytics, REST APIs, Linux scripting, Deep learning
- Development Tools: AWS, Tableau, Git, MySQL, MongoDB, Jupyter, Tensorflow, PyTorch, LaTeX
- Certifications: AWS Certified Cloud Practitioner, Microsoft Azure Fundamentals AZ900

EDUCATION

- Purdue University, Daniels School of Business** **Aug 2023 – Aug 2024**
Master of Science in Business Analytics and Information Management *West Lafayette, IN*
 - Coursework in Machine Learning, Data Mining, Computing for Analytics, Applied AI in Business
 - Inducted into Beta Gamma Sigma Society for being in the top **15%** of my cohort
- Malaviya National Institute of Technology Jaipur** **Jul 2016 – May 2020**
Bachelor of Technology in Electrical Engineering *Jaipur, India*

EXPERIENCE

- AI Engineer Intern** **Jan 2024 – Apr 2024**
Prediction Guard *West Lafayette, IN*
 - Engineered an autonomous LLM powered marketing agent to identify relevant trends and generate post ideas specific to target platforms in real time, boosting post frequency by **40%** and engagement by **25%**
 - Developed a prompt-chaining and RAG pipeline using open-source LLMs to make the agent context aware and scalable across industries, achieving significant brand alignment with a semantic score of **0.8**
 - Implemented rigorous content verification for factuality, toxicity, and PII, ensuring compliance and content safety
 - Won Poster competition at Purdue University, and were selected to present at INFORMS Analytics Conference 2024; and co-authored a paper accepted at the International Conference on Data Science
- Data Scientist** **Feb 2022 – Mar 2023**
Spry Therapeutics *Pune, India*
 - Directed a four member data science team to engineer a computer vision pipeline for company's flagship Remote therapeutic monitoring (RTM) tool securing a **7M \$** funding from marquee investors
 - Proposed and led movement categorization project helping product scale from **5** exercises to **400+** exercises
 - Optimized pose detection models in patient-side AI, improving speed by **200%** and accuracy by **65%**
 - Designed novel algorithms for calculating **15+** accuracy parameters of five categories of exercises; and introduced visualizations to the patient report, increasing healthcare provider satisfaction by **23%**
- Software Engineer** **Aug 2020 – Oct 2021**
Societe Generale *Bengaluru, India*
 - Engaged in agile team to continually deliver a robust Credit Risk Monitoring application to **1100+** end-clients
 - Solved six types of severe security vulnerabilities, making application OWASP compliant, and represented Risk team in companywide disaster recovery activity including stakeholders from France, India, and Romania
 - Formulated a documentation pipeline for common issues, resulting in a **30%** reduction in team's response time
 - Implemented a mechanism for live debugging directly in production for **10%** of users
- Researcher** **Jul 2019 – May 2020**
Robotics and Machine Analytics (RAMAN) *Jaipur, India*
 - Developed novel metaheuristic optimization algorithms and published two research papers with **30+** citations in reputed peer-reviewed journals - Evolutionary Intelligence (Springer) and Knowledge Based Systems (Elsevier)

PROJECTS

- Multimodal Meme Search Engine** | *OpenAI CLIP, Pinecone, Python*
 - Built a multimodal meme search engine enabling rapid text-to-image queries with virtually no latency, which can improve media content discovery and facilitate accurate tagging
- LLMs for automated medical documentation** | *Prompt Engineering, Langchain, Sagemaker*
 - Hosted Llama-2 on AWS Sagemaker and implemented zero-shot prompting and RAG for information extraction from medical transcripts in multiple languages and achieved Word error rate of 0.86
- Boosting Airbnb Host Profits** | *K-Means, Regression Analysis, XGBoost, Hypothesis Testing*
 - Dissected Airbnb's Superhost data for Chicago to identify demand seasonality and market expansion strategies; built predictive models to optimize listings and earnings for new hosts