

# RUTIKA AVINASH KADAM

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## EDUCATION

### Stony Brook University

Master of Science in Data Science

**Coursework:** Statistics, Data Analysis, Machine Learning, Deep Learning, Natural Language Processing, Big Data Analysis.

Stony Brook, USA

August 2024 – May 2026

### Savitribai Phule Pune University

Bachelor of Engineering in Information Technology

**Coursework:** Discrete Structures, Data Structures & Algorithms, Distribution Systems, Cloud Computing.

Pune, India

August 2016 – May 2020

## SKILLS

**Programming Languages:** Python, R, SQL (MySQL, PostgreSQL, PL/SQL), MongoDB, C, C++, HTML, CSS, JavaScript

**Data Science & Machine Learning Libraries:** NumPy, Pandas, Matplotlib, Seaborn, scikit-learn, TensorFlow, Keras,

PyTorch, Hugging Face

**Data Engineering & Big Data Tools:** Azure Data Factory, Azure Data Lake, Databricks, SQL Server Management Studio

**MLOps & Deployment Tools:** Flask, Streamlit, Gradio, GitHub, Docker, Hugging Face Hub, Hugging Face Inference API

**Tools & Platforms:** Visual Studio Code, Jupyter Notebook, SAS, RStudio, Postman, Azure, AWS, Power BI, Tableau, Microsoft

Excel, ServiceNow, Jira, Microsoft Endpoint Configuration Manager, Qualys, Aternity

## PROFESSIONAL EXPERIENCE

### Stony Brook Medicine

Research Assistant

Stony Brook, USA

July 2025 – Present

- Built missing data imputation pipelines in R & SAS for a cohort of women aged 65+ in the Study of Osteoporotic Fractures.
- Developed & validated machine learning models (logistic regression, random forest, boosting algorithms) to predict physical function decline & fracture risk; applied cross-validation & hyperparameter optimization across multiple imputed datasets to ensure robust & reproducible results.

### Tata Consultancy Services

System Analyst

Pune, India

August 2020 – April 2024

- Collaborated with the Vulnerability Management team to perform Risk Analysis on vulnerability datasets from Qualys VMDR across 55K+ Windows assets & 1M+ vulnerabilities, uncovering trends, anomalies, & threat vectors using Python & MySQL.
- Implemented predictive models for vulnerability prioritization & patch management timelines, leveraging engineered features like CVSS-weighted risk scores & patch urgency indices, leading to a 15% reduction in security risks.
- Developed supervised ML models (logistic regression, boosting algorithms, ANN) to predict the likelihood of exploitability using CVE metadata, asset attributes, & historical remediation data, improving prioritization efficiency by 25%.
- Employed Data Analysis Expressions (DAX)-enhanced KPIs like CVSS score, threat intelligence, exploitability, risk levels, remediation timelines, deployment status, compliance rates within Power BI driven Vulnerability Analysis Dashboard.
- Designed & deployed feasible technical solutions using MS Endpoint Configuration Manager to remediate Windows & application vulnerabilities with 99% compliance; optimized configurations & automated tasks using PowerShell, boosting productivity by 25%.

### Zensar Technologies

Machine Learning Intern

Pune, India

May 2019 – July 2019

- Built ETL pipelines using Azure Data Factory to process 30GB of transactional & web traffic data stored in Azure Data Lake Gen2; leveraged this data to perform Funnel Analysis for India's leading e-commerce food ordering platform, Swiggy, identifying key drop-off points & reducing cart abandonment by 11%.
- Built interactive Power BI dashboards to visualize conversion rates, traffic sources & user journey patterns; collaborated with marketing to optimize campaigns, increasing high-intent traffic by 15%.
- Tracked pipeline enhancements & analysis results in JIRA, ensuring reproducibility & alignment with business KPIs.

## PROJECT EXPERIENCE

**AskYourDocument** | Retrieval-Augmented Generation(RAG), Natural Language Processing

- Designed RAG application combining FAISS vector search with Google Generative AI, enabling intelligent question answering over ingested documents & web content.
- Implemented an ingestion pipeline for PDFs, DOCX, TXT, & URLs with SBERT-based semantic chunking, integrated into a FastAPI backend & Streamlit frontend to deliver semantic search & LLM-powered contextual responses.

**SmartApply** | Python, Gradio, Google Gemini API, Hugging Face Spaces

- Built SmartApply, a Gradio-based web app using Google Gemini API and PyPDF2 to extract resume text, analyze against job descriptions, and generate ATS match %, profile summaries, missing keywords, and skill improvement suggestions.
- Deployed the application on Hugging Face Spaces for public access, integrating prompt engineering and modular ML workflows to deliver real-time resume analysis with structured & an interactive UI.

**ScoreCast: Exam Performance Prediction** | Machine Learning, Python, Numpy, Pandas, Scikit-learn, HTML, CSS, Flask

- Designed a Flask web app with interactive UI allowing users to input data & predict math scores, building preprocessing pipelines & training multiple ML models including Linear Regression, bagging & boosting algorithms.
- Optimized models using GridSearchCV, achieving 86.8% accuracy ( $R^2$ ), & ensured robust evaluation through cross-validation for reliable predictions.