# Rishab Doshi

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#### EDUCATION

## University of Illinois Urbana-Champaign

Bachelor of Science - Computer Science and Advertising; Minor - Statistics;

Courses: Data Structures and Algorithms, Applied Machine Learning, Database Systems, Algorithms and Design, Computer Architecture, Text-based Information Systems, Probability and Statistics

### SKILLS SUMMARY

- Languages: Python, Java, C/C++, JavaScript, SQL, Bash, PHP, MATLAB, HTML/CSS
- Frameworks: Scikit, SpaCy, TensorFlow, PyTorch, Seaborn, Flask, Django, React, Node.js, Pandas, NumPy, OpenCV
- Tools: Power BI, Tableau, Docker, GIT, MySQL, Excel, Powerpoint
- Platforms: Linux, Web, Windows, Arduino, Raspberry, AWS, Microsoft Azure
- Models: Linear Regression, Logistic Regression, SVMs, Decision Trees, Random Forests, KNN, K-Means Clustering, PCA, ICA, XGBoost, LSTMs, RNNs, CNNs, ResNet, EfficientNet, Transformers, Ridge & LASSO Regression

#### Professional Experience

## MUSE Lab, UIUC | Research Assistant

Aug 2023 - Dec 2023

GPA: 3.62/4.00

- Objective: Analyzed social media sentiment, enhancing strategic communications for SHIELD Illinois.
- Leveraged Tweepy & Snscrape for data mining, extracting 500K+ posts across multiple platforms for sentiment analysis
- Utilized Bidirectional LSTM and GuidedLDA, uncovering 10 dominant thematic frames in social media discourse
- Analyzed sentiment & thematic evolution, mapping public perception shifts over 1 year, enhancing SHIELD's strategies
- Pioneered social media analytics, boosting SHIELD Illinois's outreach efficiency by 30% through engagement mapping

### SS College of Engineering, Udaipur | Machine Learning Research Intern

May 2023 - Aug 2023

- Objective: Optimized urban and ride-sharing traffic with algorithmic and predictive modeling.
- Performed hexagonal division for mapping origin & destination onto street network to determine traffic for 8 dock stations
  Analyzed hub location inventory model & various ride-sharing models deployed at Lyft, Uber & at New York & Shanghai
- Used greedy approach algorithm to maximize efficiency in laying of dock stations & employed heatmaps to track demand
- Used greedy approach algorithm to maximize emciency in laying of dock stations & employed heatmaps to track demand • Forecasted demand in a 16 sq km area using fuzzy logic based on 9 factor model due to the inherent variability in demand

### Infloso (www.infloso.com) | Entrepreneur in Residence

Jan 2022 - Dec 2022

- Infloso is an open marketplace connecting brands & influencers facilitating data driven campaigns.
- o Developed an innovative marketplace, connecting 200+ brands and influencers across platforms, catering to varied budgets
- Conducted market analysis through 150+ interviews, designed UI mockups, and streamlined operational frameworks
- Led a cross-functional team of 10 developers and marketers to successfully launch Infloso's platform on web and mobile
- Youngest winner (out of 300+ participants) for an entrepreneurship bootcamp at NUS-Singapore & INSEAD Singapore

## ACADEMIC PROJECTS

## iHealth | LLM-based Health Chatbot

- GPT-4, BioBERT, TensorFlow, NLTK, Kubernetes, PubMed, Blockchain
- $\circ~$  Utilized GPT-4 and BioBERT to enhance chatbot, improving medical advice with PubMed integrations
- $\circ \ \ Implemented \ blockchain, \ smart \ contracts \ for \ secure \ data \ sharing \ in \ cloud \ Kubernetes, \ ensuring \ HIPAA/GDPR \ compliance$
- o Optimized iHealth chatbot responses with semi-supervised reinforcement learning, leveraging AI and medical data insights
- $\circ$  Achieved significant user satisfaction increase by 40% in pilot tests, due to precise medical guidance

#### MoodTune | Personalized Mood-Based Music

- $React,\ Node. js,\ SVM,\ RNN\ , Spotify\ API\ , TensorFlow,\ Collaborative\ Filtering,\ Content-based\ Filtering$
- o Developed web app for mood detection from journals, curating personalized Spotify playlists, boosting emotional wellness
- o Employed SVM, RNN with LSTM/GRU for mood classification; dynamic playlists via collaborative, content-based filtering
- Ensured data security, user privacy handling journal entries, Spotify history with ethical AI, secure APIs
- $\circ$  Increased user engagement by 30% with accurate mood detection and personalized music recommendations in tests

#### Stock Market Prediction | Computer Science Honors, UIUC

Pandas, NumPy, yfinance, LSTM Neural Network, Machine Learning, BeautifulSoup

- $\circ \ \ Applied \ ARIMA, Exponential \ Smoothing \ in \ "Trading Lead" \ for \ 85\% \ accurate \ stock \ trend \ for easts \ on \ historical \ data$
- o Boosted model accuracy by 5% with NLP-based sentiment analysis from financial news, refining contextual input
- $\circ \ \ \text{Enabled data processing via cloud computing, developed interactive front-end for real-time performance visualization}$
- o Increased user adoption by 25% with enhanced predictive models and user-friendly performance visualization tools

#### Organizational Experience

# • Engineering Council EXPO Committee | Technology Lead

 ${\rm Jan}~2023$  -  ${\rm Present}$ 

- $\circ \ \ \text{Implemented match$  $making algorithm and virtual booths to enhance student-company interactions and engagement}$
- Streamlined registration and feedback process, improving user experience and increasing feedback rate by 30%

# • Engineering Council | Corporate Committee

Jan 2023 - Dec 2023

- $\circ \ \ \text{Managed corporate partnerships, boosting Spring Career Fair visibility and attracting over 3500 students for recruitment}$
- o Orchestrated logistics and strategies for career fairs, leading to a 20% increase in corporate participant satisfaction

## • Founders | Web Developer

Jan 2023 - April 2023

o Building a Co-Founder match system with Daisy UI, React JS, Go and MongoDB