

# Abhishek Khandge

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## EDUCATION

### MS in Data Science

University of Massachusetts, Amherst, USA

Coursework: Machine Learning | NLP | Systems for Data Science | Data Engineering | SQL

*Aug 2024 - May 2026*

### B.Tech. Artificial Intelligence & Data Science

KJ Somaiya Institute of Technology, Mumbai, Maharashtra, India

Coursework: Deep Learning | Big Data Analytics | Neural Networks | Advance Algorithms

*Feb 2020 - July 2024*

## SKILLS AND CERTIFICATIONS

- **Software:** Python, SQL, Power BI, Docker, Airflow, Pytorch, OpenCV, R, Numpy, Pandas, Scikit-learn
- **Tools:** Hugging Face, Langchain, Gemini, Mistral, Grok, Google AI Studio, GPT Assistants
- **Certifications:** Convolution Neural Networks, Hyperparameter Tuning, Python, Deep Learning, Structuring ML Projects

## EXPERIENCE

### University of Massachusetts, Amherst | *Machine Learning Research Assistant*

*Sept 2024 - Apr 2025*

- Optimized ML pipelines to detect ideological elements in 300+ social media texts, applying feature engineering and model ensembling, which improved accuracy by 15% and enabled effective labeling of a diverse dataset
- Conducted a comparative performance analysis of transformer-based large language models (LLMs) and supervised classifiers (logistic regression, SVM, random forests), demonstrating a 12% accuracy boost
- Evaluated model scalability, efficiency, and generalization by benchmarking LLM-based zero-shot/few-shot learning against traditional supervised learning approaches

### Gozoop Group, India | *AI Engineer Intern & Jr. Developer*

*Mar 2024 - Aug 2024*

- Engineered an AI-driven interview system enabling dynamic, resume-based interactions in text and voice, automating candidate evaluation and streamline report delivery to HR via email. This innovation improved efficiency and reduced HR workload by 30%, automating more than 500 interviews monthly
- Architected a scalable database structure to optimize feedback collection and collaborated with leadership to assign KPI's based on multi-source feedback, driving a 15% improvement in employee performance
- Achieved 100% feedback participation through the system, ensuring comprehensive performance assessments

### Pravin Manudhane & Co, India | *Machine Learning Intern*

*Dec 2023 – Feb 2024*

- Developed ML models for financial statement analysis, leveraging structured data from balance sheets and P&L statements to assess company performance, and improve financial reporting efficiency by 15%
- Built predictive models for stock selection, analyzing financial health and growth indicators of potential penny stocks using ML algorithms, leading to data-driven investment recommendations and improved portfolio performance

## ACADEMIC PROJECTS

### KalMiFyn | A Mental Illness App

- Developed a personalized care app with emotionally intelligent AI, enhancing security over traditional OTP methods
- Engineered a privacy-focused system addressing data breaches and mental health stigma using ML on the backend
- Built and deployed a scalable frontend with React.js for seamless user interaction

### Voice Based Recognition

- Developed a voice recognition system using a Gaussian Mixture Model with MFCC feature extraction
- Evaluated model accuracy using the Adjusted Rand Index metric for performance assessment

### Credit Card Fraud Detection

- Developed a credit card fraud detection model using Logistic Regression, Random Forest, and XGBoost
- Applied SMOTE and anomaly detection to address data imbalance for improved accuracy
- Built and optimized the pipeline using Python with hyperparameter tuning and cross-validation
- Achieved high precision while minimizing false positives for real-time fraud detection

## Publications

- Exploring Integration of ML and DL Techniques with Medical Parameters for Diabetic Clinical Decision - [Link](#)
- The Integration of Data Analytics and IoT for Smart Decision-Making in Various Industries - [Link](#)
- Role of AI in Developing Various Industries - [Link](#)

## LEADERSHIP EXPERIENCE

- Co-founded KnowHow Community, leading 40–50 students in building startup projects and mentoring them in skill development
- CTO at Society for Data Science, leading ML and Python bootcamps and driving technical initiatives