

# Akshit Abhay Keoliya

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[LinkedIn](#) | [Portfolio Website](#)

## EDUCATION

**University of Southern California, USA**

Master of Computer Science, Artificial Intelligence

**Aug 2021 - May 2023**

**Savitribai Phule Pune University, India**

Bachelor of Computer Engineering

**Aug 2016 - Jul 2020**

## SKILLS

**Machine Learning:** Data Science, Computer Vision, Natural Language Processing, Generative AI, Deep Learning

**Tools & Frameworks:** TensorFlow, PyTorch, Scikit-Learn, Pandas, NumPy, NLTK

**Web & Cloud Technologies:** Angular, Django, React, Google Cloud Platform, Amazon Web Services, Docker, Kubernetes

**Programming Languages:** Python, JavaScript, Java, C/C++

**Database Technologies:** MySQL, PostgreSQL, Cloud Firestore, MongoDB

## EXPERIENCE

**Business Analyst, V Dart Incorporated**

**Sept 2023 – Present**

- Spearheaded the implementation of machine learning algorithms to make data-driven decisions for business-critical processes.
- Aligned new features with enterprise strategy by integrating machine learning models into workflow streamlining and standardizing event processes, contributing to a 20% reduction in processing time.
- Implemented cutting-edge technologies, such as attention mechanism to analyze data patterns and explainable AI techniques to improve actionable insights.

**Machine Learning Intern, Sagveek Technologies Ltd, India**

**Mar 2020 – Oct 2020**

- Designed and developed Analysis systems as part of extracting valuable information from large scale databases.
- Built a Django website for Restaurant Reviews using Data Mining and Natural Language Processing.
- Implemented Machine Learning Operations (MLOps) framework for sentiment analysis applications.
- Scrutinized existing ML model for Medicine Review System to identify key areas of modifications and deliver optimal solutions.

**Junior Data Analyst, StackZeal Pvt. Ltd, India**

**May 2019 – Sept 2019**

- Utilized web scraping to curate extensive datasets for online course pricing analysis, ensuring data accuracy and integrity.
- Employed statistical methods to identify pricing patterns, providing actionable insights for pricing strategy optimization.
- Collaborated with cross-functional teams for the creation of compelling data visualizations and presentations, aiding stakeholders in data-driven decision-making processes and enhancing visibility of key performance metrics.

## PROJECTS

### Semantic Search Engine

- Developed a Semantic Search project utilizing LangChain and OpenAI APIs to process and convert user documents into vector embeddings for building Knowledge base in Pinecone database.
- Implemented user-friendly Next JS frontend for seamless interaction, facilitating accurate and contextually relevant results.
- Integrated cutting-edge technologies for efficient information retrieval, showcasing NLP and frontend development expertise.

### Tracking System with Multi-Camera Surveillance

- Designed and developed a system that predicts object movements using video data from a multi-camera surveillance system.
- Utilized specialized Recurrent Neural Network layer called LSTM for multi-step time series forecasting.
- Published a research paper on the project in International Organization of Scientific Research journal.
- Demonstrated expertise in Computer Vision, Deep Learning, and time series analysis through development of this project.

### LegalEase - Legal Document Summarization and Simplification

- Developed a two-step approach for summarizing and simplifying legal documents.
- Utilized BART-Large for abstractive summarization and Keep it Simple (KiS), a GPT based model, for simplification.
- Outperformed baseline models with higher ROUGE scores and improved legal text readability to 55.97 Flesch score.
- Suggested future improvements: Scaling models for larger inputs and enhancing semantic similarity evaluation.

### H&M Personalized Fashion Recommendations

- Participated in “H&M Fashion Recommendation” Kaggle competition to build personalized recommendation system.
- Developed a two-stage ensemble model that combined various ML algorithms including LSTM, K-Means, PCA to achieve a mean average precision (MAP) of 0.0242, placing in the top 20% of all submissions and top 5 teams in CSCI-567 class.

## CERTIFICATIONS & ACHIEVEMENTS

- TensorFlow Developer Specialization (Coursera)
- Generative AI for Developers (Google Cloud)
- Machine Learning Path (Google Cloud)
- Deep Learning, Data Science (IBM)
- ML Expert Track Winner (DevFest India)
- Android Expert Track Winner (Devfest India)