

Akshit Abhay Keoliya

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EDUCATION

University of Southern California

Aug 2021 - May 2023

Master of Computer Science, Artificial Intelligence

Relevant Coursework: Foundations of Artificial Intelligence, Analysis of Algorithms, Machine Learning, Web Technologies, Applied Natural Language Processing, Machine Learning for Data Science, Database Systems

Savitribai Phule Pune University

Aug 2016 - Jul 2020

Bachelor of Computer Engineering

GPA: 9.19

SKILLS

Machine Learning: Data Mining, Analysis and Visualization, Feature Extraction, Data Pipelining, Predictive and Quantitative Analysis, Reinforcement learning and Deep Learning algorithms, Natural Language Processing (NLP)

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

Web & Cloud Technologies: Angular, Django, React, Flutter, GCP, AWS, Docker, Kubernetes

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

Database Technologies: MySQL, SQLite, Cloud Firestore

EXPERIENCE

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 Machine Learning 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

Tracking System with Multi-Camera Surveillance

- Designed and developed tracking system that predicts object movements using video data from 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-2 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.

Little-Go Agent

- Developed a reinforcement learning agent that plays Go with reduced board size of 5x5.
- Achieved a Win/Draw score of 96% against random player by employing Alpha-beta pruning and Q-learning algorithm.
- Demonstrated proficiency in reinforcement learning and algorithm implementation in the context of game playing.

EMNIST Classifier Android Application

- Developed an on-device EMNIST doodle classifier Android application using TensorFlow’s Keras API.
- Trained a Convolutional Neural Network using EMNIST dataset consisting of 47 classes of Handwritten characters.
- Integrated an interactive canvas for user to draw doodles and perform inference for real-time character recognition.

CERTIFICATIONS & ACHIEVEMENTS

- TensorFlow Developer Specialization (Coursera)
- Machine Learning Path (Google Cloud)
- Deep Learning, Data Science (IBM – Cognitive Class)
- ML Expert Track Winner (DevFest India)
- Android Expert Track Winner (Devfest India)