ARAVIND BALACHANDAR

Buffalo, NY | (716) 400-7802 | balacha2@buffalo.edu | https://www.linkedin.com/in/aravind4 | Website

EDUCATION

University at Buffalo, The State University of New York — Buffalo, NY
Master of Science in Data Science | GPA: 3.83/4.0 — *Aug 2023 – Dec 2024*

Easwari Engineering College — Chennai, IND
Bachelor of Engineering in Computer Science | GPA: 8.15/10.0 — *Aug 2017 – Apr 2021*

TECHNICAL SKILLS AND ADDITIONAL

Languages: Python, Go, Java, R, SQL, NoSQL, PostgreSQL, C, C++, HTML, CSS, MATLAB, Beginner on Rust.
Operating System & Tools: Linux, AWS, GCP, Git, VS code, Docker, Jira, Kubernetes, Azure, New Relic, Jenkins.
Others: ML Algorithms, Reinforcement Learning, Data Mining, Tableau, PyTorch, Flask, Tensorflow, Keras, Streamlit.
Libraries: NumPy, Pandas, Scikit-learn, Matplotlib, seaborn, SciPy, NLTK, Transformers, OpenCV.

EXPERIENCE

QUICKPLAY MEDIA — Chennai, IND
Software Engineer (Golang Developer) — *Sep 2022 – Aug 2023*

- Attained a 64% performance boost in Couchbase NoSQL through expert optimization of functions, queries, and stored procedures.
- Designed and implemented EPG microservice, reducing program guide data retrieval time from 250 to 110ms.
- Facilitated content managers with self-service version purging (80% dev time saved), boosting resource control through effective communication.
- Led tailoring unique memory access flows to cater unique needs of over 10 clients.

ACCENTURE — Chennai, IND
Application Development Associate (Python Developer) — *Aug 2021 – Sep 2022*

- Collaborated with team to initiate design and construction of a content aggregator, yielding 71% reduction in code churn.
- Crafted custom caching techniques resulted in a stunning 40% decrease in data access time, reduced latency, cut-down data load, and a 50% boost in system responsiveness.
- Pioneered a novel feature for instant image information retrieval and rounded corner rendering without quality loss, cutting processing cost by $10k.

PROJECTS

Netflix Movie and Show Recommender | Tech stack: Python, TF-IDF, Streamlit — *Jan 2024*

- Built a content-based recommendation engine using TF-IDF and cosine similarity, producing an 8000-feature similarity matrix for personalized suggestions of top 25 contents.

Stock Market Prediction | Tech stack: Python, Prophet, Parallel Processing, Streamlit — *Dec 2023*

- Leveraged Prophet algorithm for time-series forecasting, predicting stock prices for 1 to 5 years and ThreadPoolExecutor for asynchronous data retrieval, achieving 60% faster processing.

Academic Paper Recommender | Tech stack: Python, LDA, NLP, Knowledge Graph, Gensim — *Nov 2023*

- Implemented a novel approach to academic paper recommendations, combining content-based analysis with NLP techniques such as lemmatization, LDA, TF-IDF, cosine similarity, and node2vec.

Market Basket Analysis (Bakery Sales) | Tech stack: Python, Data Analysis, Apriori — *Nov 2023*

- Identified a high-potential cross-selling opportunity through advanced analytics, discovering a 2.4% co-occurrence pattern with 70% confidence in customer transactions.

Bike rental Analysis and Prediction |Tech stack: Python, Data Visualization, Regression — *Oct 2023*

- Unveiled key data correlations through rigorous analysis, leading to an XG Boost GridSearchCV model with 90% R-squared, surpassing other regression algorithms.