Anbu Valluvan Devadasan

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CAREER OVERVIEW

AI Engineer thriving in a fast-paced startup with 10+ years of total experience and solid foundation in Machine Learning and Data Analytics. Proficient in Python, SQL, TensorFlow and PyTorch, currently specializing in AI Agentic solutions.

EXPERIENCE

SQOR.ai | Sr AI Engineer | San Diego, CA   **Jan 2025 – Present**
- Developed and deployed 13 specialized AI agents for customer pilot program through iterative user feedback optimization, achieving 80% + satisfaction score with 25-50 beta users and positioned for 1000+ user rollout.
- Improved retrieval accuracy by 15% through semantic chunking optimization across 5000+ document pipeline, implementing LLM-as-a-Judge evaluation framework to enhance response quality and chat performance
- Built predictive analytics models forecasting 18 critical KPIs with 87% accuracy over 3-month horizons, powering automated insights generation and forecasting for business users across 40+ integrated SaaS platforms

San Jose State University | Machine Learning Research Assistant | San Jose, CA   **May 2023 – Dec 2024**
- Achieved medical-grade accuracy (MAE:4.09mmHg) in Edge AI solution for blood pressure monitoring funded by RSCA, published in MDPI journal and presented in Google Tech Talk in San Diego.
- Reduced model size by 90.7% through advanced quantization techniques for resource constrained embedded systems while maintaining medical grade accuracy, enabling 2.6ms on Arduino Nano MCU for edge deployment.
- Innovated E-SMOTE algorithm, an entropy-based advanced synthetic data generation technique for improved class representation in medical machine learning applications, published in IEEE COMPSAC 2025 – Japan.

Data Analyst | State Bank of India | Hyderabad, India   **Jan 2020 – Jan 2023**
- Modeled NLP-based sentiment analysis and text mining across various customer touchpoints driving a 21% surge in customer satisfaction through data driven pain points identification, service enhancements, grievance addressal.
- Partnered with senior analytics team on retail asset products using in-house data analytical solutions providing crucial insights that doubled the average loan ticket size to $6000 and improved product performance
- Streamlined reporting on retail assets post digital product launches, focusing on Pre-Approved Personal and Pension Loans utilizing MySQL, PowerBI enabling targeted strategies, resulting in 13% increase in asset penetration

Manager | State Bank of India | Hyderabad, India   **Jan 2018 – Jan 2020**
- Managed a mid-sized urban branch with a 20 member team, driving branch asset portfolio growth by 38%, through analytics driven customer segmentation and CRMNext insights. Enhanced customer satisfaction score from 3.1 to 4.2/ 5.

Senior Credit Analyst | State Bank of India | Hyderabad, India   **Jan 2016 – Dec 2017**
- Managed Rs.530M asset portfolio specializing in agricultural assets achieving 18% market share growth and reduced stressed assets portfolio by 20% through risk management, implementing structured resolution strategies

Assistant Manager | State Bank of India | Hyderabad, India   **Dec 2013 – Jan 2016**

EDUCATION

- **M.S in Applied Data Science | San Jose State University | San Jose, CA**   **Dec 2024**
- **M.S in Computational Physics | University of Hyderabad | Hyderabad, India**   **Oct 2013**
- **B.S in Computer Science | Osmania University | Hyderabad, India**   **Apr 2011**

PUBLICATIONS

- "Deep Learning for Non-Invasive Blood Pressure Monitoring: Model Performance and Quantization Trade-Offs" in MDPI journal (Link: Click Here)
- "E-SMOTE: Entropy based Minority Oversampling for Heart Failure and AIDS Clinical Trails Analysis," in 2024 IEEE 48th Annual Computers, Software, and Applications Conference (COMPSAC), Osaka, Japan, 2024 (Link: Click here)

RESEARCH PROJECTS

Facial Recognition System for Missing Person Identification   **Sep 2023**
Python, PyTorch, Computer-Vision, Video Processing
- Architected facial recognition system utilizing ensemble models achieving 93% recall & 89% precision in identifying missing people from video streams through multi-tired detection, alignment and feature extraction

Yelp Review Sentiment Analysis Streaming Pipeline – Big Data Analysis   **Dec 2023**
Big Data Analysis, Google Cloud Platform, Apache Spark, Dataproc, PySpark
- Engineered a scalable sentiment analysis system for YELP reviews using GCP services, processing 9GB historical data and 500+ daily streaming reviews via Pub/Sub. Achieved 95.7% ROC AUC, with PySpark preprocessing pipeline and real-time microservice deployment for automated insight generation

SKILLS

•Python •SQL (Joins, Functions, Stored Procedure) •Scikit-learn •Keras •TensorFlow Lite •AWS (SageMaker, Glue, Lambda, Redshift) •Azure •Apache Airflow •Data Warehousing – Snowflake •PowerBI •Tableau •Docker •MLOps tools (Docker, Kubernetes) •Grafana •Hadoop