SHREE HARI ANBAZHAGAN

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👤 EXPERIENCE

Comcast 🔗 *July 2023 - present*
Development Engineer 1, Data Engineer *Chennai, India*
- Developed ETLs integrating Kafka with AWS Redshift, achieving near-zero downtime and improving reliability.
- Architected scalable, secure solutions with **IaC** tools and **draw.io**, reducing deployment time by **30%**.
- Designed **EnvSyncer** to sync data between environments, improving data availability.
- Built **reconciliation frameworks** to validate data integrity between the source and Data Warehouse, improving data accuracy by **40%**.
- Introduced anomaly detection using **AWS Lookout for Metrics**, then integrated it with our in-house application, enhancing user experience.
- Led **knowledge transfer** on the Data Warehouse and existing frameworks, wrote documentation to address gaps, and enabled team on-boarding.
- Assisted the **Service Reliability Engineering** team in refining **deployment strategies** through testing and performance enhancements.

Comcast 🔗 *Jan 2023 - June 2023*
Intern *Chennai, India*
- Developed a **Slack notification system** to monitor ETL runs, job status. Providing real-time alerts and daily cost breakdowns to enhance operational efficiency.
- Contributed to the **Data Warehouse** application to create a single source of truth for organizational data.
- Learned about Comcast's **construction ecosystem**, Wi-Fi connectivity processes, business model, and the **significance of data** in driving business decisions.

Lasso and Marquee Design Solutions 🔗 *June 2019 - July 2019*
Intern *Chennai, India*
- The internship provided valuable insights into IT operations, teamwork and professional communication.

🎓 EDUCATION

Indian Institute of Technology Madras 🔗 *Sep 2023 - present*
Diploma in Data Science *Chennai, India*
Gaining expertise in analytics, machine learning, and big data technologies through the program.

SASTRA Deemed University 🔗 *July 2019 - May 2023*
Bachelor of Technology in Computer Science & Engineering, *Thanjavur, India*
Achieved First Class with Distinction.

💻 PROJECTS

IITM Machine learning project 🔗 *Sep 2024 - Nov 2024*
- Built models to predict bank telemarketing success.
- Performed **EDA and preprocessing**, **trained 4 models**(Logistic Regression, k-Nearest Neighbour, RandomForest, Hist-GradientBoostingClassifier), achieving **87% accuracy** and 0.75 F1 macro score.
- Identified bias in the data skewed toward negatives, leading to challenges in achieving better model performance.

Sentiment Analysis and Topic Modeling for Tweets 🔗 *Dec 2023 - Feb 2024*
- Contributed to the "Inside Out - Understanding User Emotions" ML project, analyzing tweet sentiments and topics, presented my findings at **G20 Library Summit 2024**.
- Compiled findings in Excel sheets with **sentiment analysis, topic modeling, engagement metrics, heat maps, and graphs to visualize data trends**.
- Used **pysentimiento** and **cardiffnlp/tweet-topic-21-multi** to achieve **94.53% accuracy** in tweet insight extraction.

Diabetes prediction 🔗 *Jan 2022 - June 2022*
- Developed **Django web application**, utilizes **machine learning algorithms** to predict using **basic health metrics**.
- Compares each prediction with **six different machine learning models**(Decision Tree, Gaussian Naive Bayes, k-Nearest Neighbour, Logistic Regression, Adaboost, Random Forest) and publishes only the one with the best accuracy.
- Integrated **PDF report generation** and **SMS notification** features, with **Random Forest achieving 0.87 accuracy**, delivering results in downloadable and mobile-friendly formats.

Other projects
- **Helper** 🔗 Created reusable helper classes for AWS, API integration, Kafka, and Slack.
- **IITM Business Data Management project** 🔗 Tackles business challenges through data management and analysis.
- **Resume** 🔗 using LaTeX.

🏆 AWARDS & ACHIEVEMENTS

- **Champ Award**, Comcast (Q4 2023, Q1 2024)   *2023 - 24*
  Awarded consecutively for outstanding performance and contributions.
- **Technology & Engineering Emmy Award**, Comcast 🔗   *Feb, 2024*
  Part of the team recognized for innovation in sports viewing technology.
- **Good Presentation Award**, **G20 Library Summit** 🔗   *Feb 8, 2024*
  Recognized for an impactful presentation on technology integration in libraries.

📖 WORKSHOPS

- Organized a successful **SQL Workshop Fundraiser** 🔗   *Sep 8, 2024*
  Raised funds for **Bhumi** to support shelter children through the LEM program.
- Attended the **Responsible & Safe AI Workshop** at **IIT Madras** 🔗   *Nov 19, 2023*
  Explored topics like legal bias, AI attacks, and unlearning, hosted by CeRAI.
- Participated in a **Web Development Workshop** conducted by **Sastra University**   *Aug 5–7, 2022*
  A three-day hands-on program focused on building web applications using Django and Python.

🗂 PRESENTATIONS

- Shared insights at **G20 Library Summit** 🔗   *Feb 7-9, 2024*
  Where technology integration in libraries, applying sentiment analysis and topic modeling on X / Twitter data.
- Discussed data engineering solutions at **Comcast**   *2024*
  Focusing on performance optimizations and key insights.
- Demonstrated the **Diabetes Prediction System** project   *2022*
  Highlighting multi-model machine learning techniques and a user-centric web app.

👥 SEMINARS & CONFERENCES

- Attended the **AWS User Group Chennai** session on **GenAI and serverless technologies** 🔗   *Sep 3, 2024*
  Speaker **Eric Johnson** provided valuable insights on serverless and GenAI.
- Participated in **IIT E-Summit 2024** 🔗   *Mar 9, 2024*
  Enjoyed talks by venture capitalists **Jivraj Singh Sachar**, **Ranjith Menon**, and **Vaibhav Domkundwar**.
- Attended the **AWS Awesome Day** conference 🔗   *June 8, 2024*
  Sessions focused on machine learning, serverless, and big data analytics.

🛠 TECHNICAL SKILLS

Programming: Python, SQL, Terraform (Infrastructure as Code), shell commands (basic), YAML, JSON.
Tools and Frameworks: AWS (AWS Lambda, Glue, S3, Redshift, Athena, IAM (Roles, Policies), Secrets Manager, CloudWatch), Boto3 (AWS API), REST API, PostgreSQL , Docker, Kafka, Machine Learning (ML), Git, VSCode, JIRA, Excel.

🤝 VOLUNTEERING & EXTRACURRICULAR

Bhumi 🔗   *Sep 2024 - present*
Centre Coordinator   *Chennai, India*
- Organized workshops, events, and additional classes to meet children's needs, including a **SQL workshop** to raise funds for better living conditions and sports events to foster stronger community engagement.

Bhumi   *July 2024 - Sep 2024*
LEM Volunteer   *Chennai, India*
- As part of the Ignite **Little Einstein Mathematics** program, we teach math to children in shelter homes using interactive and hands-on methods.

Sastra   *July 2022 - June 2024*
NSS Leader   *Thanjavur, India*
- **Increased annual blood donation camps** and supported local community for crowd control and festival management.
- Strengthened community ties by addressing local hospital needs and supporting the temple, earning respect and recognition.

Sastra   *Aug 2019 - June 2022*
NSS Volunteer   *Thanjavur, India*
- Participating in community initiatives such as blood donation camps and shelter home cleanups.