JUHI ANAND

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EDUCATION

University of Illinois Chicago: Master of Science in Business Analytics | GPA: 4.0	Chicago, USA, 2025
University College Dublin: Master of Science in Computer Science | GPA: 3.9	Dublin, Ireland, 2020
RGPV University: Bachelor of Engineering in Computer Science | CGPA: 8.36	India, 2014

SKILLS

Programming: Python, Bash Scripting, SQL, PostgreSQL
Gen AI: ElevenLabs, n8n, Gemini 2.0, GPT 4.0, Langchain, Groq, Hugging Face, Loveable
Data Techniques: Supervised and Unsupervised Machine Learning, Natural Language Processing, Exploratory Data Analysis (EDA), Web Scraping, Data Visualization, ETL Scripting, Time-Series Forecasting, Prompt Engineering
Libraries/Frameworks: NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, Beautiful Soup
Cloud Technologies: Amazon Web Services (Kinesis, Glue, Lambda, IoT, S3, DynamoDB, Redshift, CloudWatch)
Tools: Apache Airflow, Hive, HBase, Zookeeper, Oozie, SSIS, SSAS, SSRS, Grafana, Tableau, MS Excel, Weights & Biases, MySQL, Timescale, Docker

PROJECTS

TikTok Mental Health Analysis
- Leveraged **multimodal LLM** (Gemini 2.0) to extract user demographics, PHQ-9 depression symptoms, and emotional cues from TikTok videos, enabling **data collection** for structured analysis of mental health signals.
- Conducted in-depth EDA and applied **Negative Binomial Regression** to **identify key drivers of engagement**, explaining **45% of the variance** in the viewer interaction with mental health-related content.

Empathia: AI-Powered Job Application Assistant
- Built Empathia, a voice-first AI assistant leveraging **ElevenLabs and GPT-4** to capture conversational input and generate personalized resumes and cover letters, with a focus on accessibility and inclusive design.
- Designed and developed an automated modular **n8n workflow** to orchestrate voice interaction, prompt processing, document generation, and email delivery for a seamless, hands-free user experience.

Prostate Cancer Survival
- Executed survival analysis using regression techniques to predict 7-year prognosis for prostate cancer patients, achieving a **65% prediction accuracy.**
- Performed feature engineering, exploratory data analysis, and statistical testing to **identify key clinical predictors**, driving data-informed decisions in patient care.

EXPERIENCE

VRM TECH	Dublin, Ireland
Data Engineer	Oct 2020 – Apr 2021

- Analyzed **~1.5M records of high-frequency** energy utilization data and developed time-series forecasting models, achieving an **R^2 of 0.87** that resulted in accurate energy forecasting and optimized maintenance scheduling.
- Migrated legacy data pipelines to AWS serverless ETL architecture using Python, SQL, Kinesis, Glue, and Lambda, reducing data processing **latency from 15 minutes to under 1 minute**.
- Built real-time Grafana dashboards for critical operations, reducing **analysis time by 70%** and accelerating insights across teams.

Data Science Intern	Jul 2020 – Sep 2020

- Conducted statistical EDA to explore relationships between Green Infrastructure and Air Quality datasets, **leading to 15+ green asset deployments** in high-risk pollution areas and providing actionable insights for sustainable urban planning.
- **Built a proof-of-concept** monitoring system using Timescale DB and Grafana, featuring real-time alerts and interactive dashboards; **approved as a full-scale project and implemented in production** to improve observability and accelerate cross-team decision-making.

AMDOCS	Pune, India
Software Developer	Jun 2014 – Jul 2019

- Optimized data-driven marketing campaigns and segmentation strategies by analyzing customer behavior with HBase, HiveQL, and Python, leading to **higher engagement and increased plan upgrades**.
- Developed an automation script to expedite Call Detail Record (CDR) stream processing, restoring real-time campaign flow in production by **eliminating 50% of the CDR backlog**.
- Ensured stability and efficiency of distributed data workflows by maintaining system health and performance using Hive, Oozie, and Icinga on the MapR platform.
- Led scalable solutions in Agile projects by integrating CI/CD practices, automating testing and deployment, and accelerating client-requested **feature delivery from ~1-2 weeks to a few days.**
- Provided production support and led cross-functional collaboration for Order Management, Customer Resource, and Customer Service Management applications, **consistently meeting deadlines and enhancing client satisfaction**.

CERTIFICATIONS & ACHIEVEMENTS

- **AWS Cloud Practitioner**, Amazon Web Services	Sep 2022
- **Data Engineering with AWS**, Udacity Nanodegree	Apr 2023

COMMUNITY CONTRIBUTIONS

- Mentored under-resourced youth through the *'Mentor-Together'* **NGO**, fostering their academic and personal growth.
- Participated in Amdocs **Corporate Social Responsibility** (CSR) program *'Blossoms'*, contributing to social impact initiatives.