# JUHI ANAND

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#### **EDUCATION**

University of Illinois Chicago: Master of Science in Business Analytics | GPA: 4.0 University College Dublin: Master of Science in Computer Science | GPA: 3.9 **RGPV University:** Bachelor of Engineering in Computer Science | CGPA: 8.36

Chicago, USA, 2025 Dublin, Ireland, 2020

India, 2014

### **SKILLS**

Programming: Python, Bash Scripting, SQL, PostgreSQL

Gen Al: 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 Al 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 datainformed decisions in patient care.

### **EXPERIENCE**

VRM TECH

Dublin, Ireland

Oct 2020 – Apr 2021

- **Data Engineer** Analyzed ~1.5M records of high-frequency energy utilization data and developed time-series forecasting models, achieving an R<sup>2</sup> 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 decisionmaking.

## **AMDOCS Software Developer**

Pune. India

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 clientrequested 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 Apr 2023

Data Engineering with AWS, Udacity Nanodegree

## **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.