Nikhil Komal Kumar Yakkala

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WORK EXPERIENCE

Software Developer | Community Dreams Foundation | USA   **June 2024 – Present**

- Designed Python automation frameworks that eliminated manual onboarding/offboarding processes for **1,000+** employees annually, improving HR operational efficiency.
- **Developed an LLM-powered internal portal** for users and admins, integrating tasks, user profiles, payments, and document workflows with role-based access, reducing manual operations.
- Automated monthly payment follow-up emails, increasing stakeholder response rates by **30%** within two months and improving payment resolution times.
- Translated data models into a robust relational database schema and implemented controlled ETL processes, reducing data inconsistencies.
- Built Python scripts to auto-generate and distribute weekly workforce reports highlighting recent joiners and offboarded users, saving time in manual report generation.
- Implemented GitHub Actions CI/CD pipelines for **20+** automation jobs with proactive daily monitoring, ensuring uninterrupted delivery.

Computer Science Grader | School of Computing, DePaul University | Chicago, IL   **September 2023 - June 2024**

- Managed grading responsibilities for Data Analytics and Regression, Distributed Systems, and Big Data Mining concurrently, providing detailed feedback, maintaining quality standards and meeting deadlines effectively.
- Evaluated and graded 50+ assignments per week, prioritizing fairness and accuracy to uphold academic integrity.
- Provided personalized guidance and support to over 100 students, aiding comprehension, addressing inquiries across the subjects.

Associate Professional Software Engineer, Data | DXC Technology | Chennai, India   **August 2021 - June 2022**

- Converted complex business requirements into **cloud-ready ingestion pipelines**, integrating data from databases, flat files.
- Developed Python utilities to auto-generate test data execute unit suites, reducing QA turnaround time and accelerating release cycles.
- Designed and deployed **DataStage parallel and sequence** jobs to cleanse, transform, and load datasets in line with business rules.
- Orchestrated DataStage and DBT workflows via Control-M, ensuring on-time daily refreshes and simplifying operations monitoring.
- Implemented error-handling and logging mechanisms, quickly flagging data-quality issues and accelerating root-cause analysis.
- Captured and tracked unit-test results in Quality Center, ensuring complete traceability from requirements through deployment.
- Delivered end-to-end post-implementation support, resolving critical incidents and tuning pipelines for performance and cost efficiency.

PROJECTS

DePaul University   *Chicago, IL*

Analyzing Gamer Behaviour and Mental Health Patterns Using Machine Learning   **March 2024 - June 2024**

- Classified gamer profiles and analyzed correlations between gaming behaviours and mental health indicators (e.g., anxiety, life satisfaction, and social phobia) using clustering techniques like **KMeans**, achieving a Silhouette Score of 0.72.
- **Identified four distinct gamer clusters** (e.g., High-Engagement Players, Anxious Players) through clustering analysis of a dataset with 13,464 records, providing insights for personalized gaming experiences and mental health interventions.
- **Proposed advancements** such as real-time data integration and advanced clustering methods to improve dynamic user profiling.

Geethanjali College of Engineering and Technology   *Hyderabad, India*

TutorHub Connect   **May 2020 - June 2020**

- **Designed and developed** a scalable web platform using the MEAN stack, connecting 100+ students with local tuition centers and tutors through personalized, location-based search functionality.
- **Implemented JWT and bcrypt authentication**, ensuring data privacy and reducing login issues by **30%**, boosting user trust.
- **Enhanced user experience** by optimizing search and filtering, achieving **20% faster query results**, and increased user engagement.

SKILLS

Programming Languages: Python, SQL, Java, R, C
Data and Cloud: AWS, Snowflake, MySQL, OracleSQL, DBT, Apache Spark, Kafka, DataStage, ETL Pipelines, Relational Schema Design
Automation & DevOps: GitHub Actions (CI/CD), Docker, Control-M, Shell Scripting, Workflow Orchestration, Logging & Monitoring
Web Technologies: React, Node.js, Express.js, Angular, HTML, JavaScript
Analytics & BI: Tableau, Power BI, Data Visualization, Clustering (KMeans), Regression Analysis
Tools & Collaboration: JIRA, Confluence, Quality Center
Core Competencies: Process Automation, Data Quality Assurance, Root Cause Analysis, Performance Tuning, Stakeholder Collaboration

EDUCATION

DePaul University   **Chicago, IL**
Master of Science in Computer Science **GPA: 3.7/4.0**   **September 2022 - June 2024**

Geethanjali College of Engineering and Technology   **Hyderabad, India**
Bachelor of Technology in Computer Science **GPA: 3.2/4.0**   **August 2017 - June 2021**