

Puru Singh

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EDUCATION

Graphic Era Deemed to be University

Bachelor of Technology, Computer Science, GPA: 8.73

Dehradun, UK

2020 - 2024

WORK EXPERIENCE

Data Engineer at Genpact

Business Analyst Gen-AI

Bangalore, KA

Oct 2024 – Current

- Developed, migrated, and optimized **ETL pipelines** from **PostgreSQL (Greenplum)** to **SparkSQL** and **Python (PySpark)** on **Databricks**, improving job runtimes by up to 80% through logical flow enhancement and Spark-specific optimizations.
- Designed and orchestrated robust end-to-end workflows using **Apache Airflow**, Python scripts and Databricks jobs and workflows with its native features to ensure scalable, reliable, and efficient data processing.
- Collaborated with cross-functional teams to streamline the migration process across Ingestion, Transformation, and Visualization layers—including Dashboards and Data export/delivery jobs.
- Addressed complex data engineering challenges during platform modernization and contributed to the stability and scalability of the new data ecosystem by developing Connection modules and Task specific frameworks using **Python**.

Internship at Genpact

Data Analyst and Gen AI Intern

Hyderabad, TL

Feb 2024 – July 2024

- Leveraging Generative AI, Developed an automation script using **Python (LangChain)** to generate summaries of large financial reports (10-K), optimizing control flow and prompt engineering, resulting in a speedup of over 85% from previously used solutions.
- Created a Financial Health Dashboard for Consumer Banking using Microsoft Power BI, aggregating all income sources and spending, providing a comprehensive financial overview and suggestions to meet goals at a glance.
- Gained experience on Data cleaning, Data preprocessing, and creating insightful dashboards to extract valuable insights.

Internship at Defense Research and Development Organization (DRDO)

Android Development and Security Intern

New Delhi, DL

Jul 2023 – Aug 2023

- Developed a background **Android** app using **Kotlin**, **Jetpack Compose**, and services like `NotificationListenerService` to capture and automatically forward system notifications from user-specified applications via SMS.
- Implemented a Jetpack Compose UI to configure a recipient phone number and display a real-time, on-screen log of forwarded activity.
- Conducted static and dynamic security analysis using MobSF, reducing testing time by 70% and identifying critical flaws.
- Gained proficiency in core Android components such as Background services, Runtime permissions, and System-level APIs like `SmsManager`.

PROJECTS

Loocle – A Self-Hosted Photo Backup and Web App (Google Photos Inspired)

- Engineered a self-hosted photo management system replicating Google Photos' backup and viewing experience, running **entirely on local devices** without any cloud dependencies.
- Built a **Python Flask web application** and **HTTP server** for browsing, uploading, and managing photos with fast metadata-based search and caching.
- Automated **wireless Android backups** using **ADB over Wi-Fi**, enabling seamless syncing between mobiles and a personal computer.
- Integrated **facial recognition features** using multi-shot classification for identifying and searching people in photos.
- Implemented automatic **metadata tagging** to associate detected faces with person names, enhancing organization and quick retrieval.
- Focused on **privacy-first architecture**, **automation**, and **system reliability**, ensuring zero reliance on third-party cloud services.

ACHIEVEMENTS

Top 50 in Coursera's first Employment Hackathon

Online - Jan 2023

3rd Position in Intel's OneAPI Hackathon - Machine Learning, SYCL Programming

IIT Roorkee, UK - Mar 2023

ADDITIONAL

Technical Skills: Python, Flask, Apache Spark, Apache Airflow, Databricks, SQL, AWS, REST APIs, C++, Kotlin, Microsoft Power BI, Excel, Generative AI (LangChain, RAGs, Ollama), Machine Learning, Automation Scripting

Domains & Concepts: System Design, Backend Development, RPA Concepts, ETL Pipelines, Data Engineering, Cloud Infrastructure, Facial Recognition, Computer Vision

Certifications & Training:

Databricks - Data Engineer - Professional, Data Engineer - Associate, Generative AI Engineer - Associate,

AWS - DEA-C01 Certified Data Engineer - Associate, CLF-C01 Certified Cloud Practitioner, **Microsoft** - AI-900 Azure AI Fundamentals

Languages & Interests: English (Fluent), Hindi (Fluent) | Fast Touch Typing (172 WPM, Top 7%), Reading, PC Gaming, Beatboxing