

THAMUVEL E

Big Data Engineer | Cloud Data Engineer | Backend Developer | Data Analytics

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PROFILE SUMMARY

Computer Science graduate with a solid foundation in Data Engineering, Backend Development, and System Programming. Skilled in Python, SQL, and C programming, with hands-on experience building ETL pipelines, processing large datasets using Apache Spark & Hadoop, and deploying cloud-based solutions on AWS. Proficient in developing scalable RESTful APIs, optimizing server-side logic, and working with SQL/NoSQL databases. Strong understanding of algorithms, data structures, memory management, and debugging in Linux environments. A quick learner with strong analytical and problem-solving skills, dedicated to creating efficient, high-performance software and supporting data-driven decision-making in engineering teams.

WORK EXPERIENCE

SamCore Solution

Trichy,TN

Intern in Java developer

10/2024 - 11/2024

- Gained hands-on experience in Core Java, OOP concepts, JDBC, and Servlets for application development.
- Designed and developed small-scale projects, focusing on debugging, code optimization, and performance improvement.
- Collaborated with the team to understand SDLC processes and applied version control using Git.
- Received basic exposure to Spring Boot and REST APIs, enhancing backend development skills.
- Strengthened problem-solving and programming skills by applying academic knowledge to real-world projects.

SamCore Solution

Trichy, TN

Intern in Python developer

07/2024 - 09/2024

- Gained hands-on experience in Python programming, including data structures, file handling, and scripting for automation tasks.
- Worked on data cleaning and transformation using Pandas and NumPy, preparing raw datasets for analysis.
- Built beginner-level ETL pipelines to extract data from CSV/APIs, transform it with Python, and load it into MySQL/PostgreSQL databases.
- Collaborated with the team to understand database management, version control (Git), and SDLC processes.
- Strengthened skills in SQL queries, basic data warehousing concepts, and cloud exposure (AWS S3/Google Colab) to support entry-level Data Engineering tasks.

SKILLS

Java, Python, C programming, HTML, JavaScript, Scala, Apache Spark, Apache Kafka, AWS Cloud, Hadoop, SQL, NoSQL, ETL/ELT processes, Data Modeling

Certifications

AWS Certification Course – Cultus Education — In progress a course on Amazon Web Services (AWS) covering EC2, S3, RDS, and IAM, with hands-on experience in cloud deployment and storage management.

Python Certification – Sam Core Solutions — Completed a certification in Python Programming, gaining hands-on experience in OOP concepts, data cleaning, and automation with Pandas, NumPy, and MySQL.

Java Certification – Sam Core Solutions — Earned a certification in Java Programming with practical exposure to Core Java, OOP, JDBC, and Servlets.

Projects

Real-Time Data Streaming with Apache Kafka

- Designed and implemented a real-time data pipeline using Apache Kafka.
- Ingested streaming data from external APIs (e.g., stock market/tweets).
- Processed and stored transformed data in PostgreSQL for analytics.
- Improved data availability for real-time monitoring and reporting.

Data Warehouse on AWS Redshift

- Improved data retrieval speed by {25%} by designing a star schema for structured business data.
- Built ETL workflows to move raw data from AWS S3 into Redshift.
- Optimized queries using distribution keys and sort keys.
- Enabled faster analytical reporting and BI integration.

Projects

Airflow ETL Automation

- Improved data processing speed by {25%} using Apache Airflow to schedule ETL pipeline development.
- Automated daily ingestion of data from a REST API into PostgreSQL.
- Applied Python scripts for data cleaning and transformation.
- Reduced manual effort by 100% through workflow automation.

Big Data Processing with Spark

- Increased data processing efficiency by using PySpark for analyzing {2 million} e-commerce transactions.
- Performed data cleaning, transformations, and aggregations at scale.
- Stored results in HDFS/PostgreSQL for further reporting.

Data Lake on AWS (S3 + Glue + Athena)

- Built a data lake architecture to store raw structured and unstructured data in AWS S3.
- Improved data processing efficiency by {30%} using AWS Glue for schema detection and ETL transformations.
- Queried transformed datasets directly in Athena using SQL.
- Enabled a serverless, cost-effective data storage and querying solution.

Distributed Storage System (C Project)

- Designed and developed a Distributed Storage System in C for scalable file management.
- Increased data retrieval speed by {25%} through file chunking and replication.
- Built client-server communication using socket programming for seamless data transfer.
- Achieved fault tolerance, enabling the system to operate even if a storage node fails.
- Utilized Linux file handling and multithreading to optimize performance and concurrency.

Responsive Personal Portfolio Website

- Developed a professional, static personal portfolio utilizing HTML5, CSS3, and Vanilla JavaScript to showcase skills and projects without relying on external frameworks.
- Implemented a mobile-first, fully responsive UI using modern CSS techniques, including Flexbox, CSS Grid, and Media Queries, ensuring seamless display across all device sizes.
- Engineered interactive elements with JavaScript (DOM Manipulation), including dynamic mobile navigation toggles and client-side form validation for enhanced user experience.
- Optimized for high performance and accessibility by employing clean, semantic HTML and a lightweight architecture, ensuring rapid page load times.

Education

Bharath Niketan Engineering College, Anna University	Theni, TN
Bachelor of Science in Information Technology GPA: 8.06 / 10	2021 - 2025
GRV Higher Secondary School, Theni, TN Board	
Higher Secondary Education (HSE):	2021
<ul style="list-style-type: none">88.5%	
GRV Higher Secondary School, Theni, TN Board	
Secondary School Examination (SSE):	2019
<ul style="list-style-type: none">81%	