Gauthum J

Systems Engineer | Logistics Tech

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SUMMARY

Full-Stack Systems Engineer specializing in software development for **high-scale logistics architecture and** system design for **automated inventory systems**. Proven track record at **Sainsbury's (TCS)** of architecting **workflows for 100,000+ SKUs and delivering zero-downtime migrations**. Expert in **SQL, Körber WMS** and **Python** (FastAPI/Django), with deep experience in building resilient, mission-critical backend infrastructure and distributed systems to drive 25%+ operational efficiency gains.

TECHNICAL SKILLS

- **Logistics & Domain:** Warehouse Management Systems (Körber WMS), Inventory Automation, Fleet Management, Route Optimization, Supply Chain Visibility.
- **Languages & Scripting:** SQL (Advanced), Python (FastAPI, Django), PowerShell, JavaScript.
- **Backend & Systems:** Distributed Systems, RESTful API Design, Microservices, ORM (Django/SQLAlchemy), Schema Design.
- **Frontend & Mobile:** ReactJS, Flutter, React Native, NextJS.
- **DevOps & Tools:** GitHub Actions, CI/CD, Selenium, TensorFlow, MongoDB, AWS (Lambda/S3).

EXPERIENCE

Systems Engineer
Consulting for Sainsbury's (via TCS)   **June 2023 - Present, Chennai, India**

- **Architected and deployed** automated inventory reconciliation solutions; reduced manual operational overhead by **200+ hours/week** and achieved a **0% error rate** during a **100k+ record migration**.
- Applied robust **software architecture principles to refactor core WMS business logic,** optimizing fulfilment paths and driving a **20% increase in warehouse throughput** and sustained **99.9% system uptime** during peak retail periods.
- **Spearheaded internal technical training** on migration scripting and automation flows, empowering the team to manage inventory logic independently and **increasing operational autonomy**.
- Orchestrated **CI/CD pipelines** via **GitHub Actions** to automate packaging and deployment, reducing weekly release overhead and eliminating manual errors across Non-Prod and Prod environments.

Software Engineering Intern
Unipe   **May 2022 - July 2022, Bangalore, India**

- Built 10+ AWS Lambda functions and API Gateways, **reducing backend response time by 30%.**
- Scraped and automated minimum wage data extraction for 28 Indian states using Python, eliminating manual entry.
- Led **web development** initiatives by designing ReactJS interfaces that **improved user engagement by 25%.**

Software Research and Development Intern
D3View   **March 2021 - July 2021, Detroit, USA**

- **Streamlined** software testing by **automating 30+ test cases** with **Selenium and Python,** cutting QA time from 30 to 3 minutes per test.
- Refactored testing scripts into reusable modules, improving framework scalability and **reducing maintenance effort by 40%.**

PROJECTS

Spry - Intelligent Fleet Management
Mercedes-Benz Research & Development India • Github • February 2022 - March 2022

- **Created a fleet management application** designed to track buses in a fleet, focusing on both service providers and consumers, with a multi-faceted admin and consumer console for mobile.
- Leveraged advanced **system design** to implement a **route recommendation system** that optimizes course selection based on bus capacity and location.
- Developed the application to support 50+ **bus routes in Bangalore**, focusing on the consumer experience and operational efficiency.
- Built as part of a **hackathon**, where the project placed in the **top 10**, demonstrating the ability to develop a complex, scalable solution.

Real-Time Logistics & Transit Tracker
Vellore Institute of Technology • Github • March 2021 - May 2021

- **Developed the backend** for a real-time bus tracking app designed to help students track the location of their college bus, impacting **up to 10,000 students**.
- Set up the **real-time database using Firebase**, enabling seamless synchronization and accurate bus location updates for **30+ buses** in real time.
- Established a **real-time connection** between Firebase and the Flutter frontend, ensuring location updates with minimal delay (1–2 seconds), improving the user experience.
- Managed the end-to-end **software development** lifecycle for the backend, focusing on a real-time **software architecture** that handles dynamic updates for **10,000+ users**.

EDUCATION

Bachelor of Technology
Vellore Institute of Technology • Chennai • 2023 • 8.1

CERTIFICATIONS

Google Cloud Fundamentals
Coursera • 2022

Machine Learning
Stanford online • 2020

AI for Everyone
Deeplearning.ai • 2020

Certification In Python Programming
Rice University• 2019