# SWANAND SANJAY KHONDE

+1 8329073091 | swanandkhonde1999@gmail.com | Github | LinkedIn | Portfolio

## PROFESSIONAL SUMMARY

Full-Stack Software Engineer with 3.5+ years of experience building end-to-end, data-intensive web applications across EV, financial services, and ESG platforms. Strong in React, Next.js, Python, FastAPI, and cloud-native systems on GCP using Terraform and CI/CD, developing analytics dashboards, backend services, AI-powered tools, and OTA software management platforms at Ford Motor Company.

## EXPERIENCE

**Ford Motor Company**                                                                01/25 – Present
*Software Engineer – Advanced EV Systems, Skunk Works*                    *Long Beach, California*
- Built an end-to-end analytics platform using Next.js and FastAPI to visualize 30GB+ of EV software-in-the-loop (SIL) regression test data per run, used by 200+ engineers to explore and analyze vehicle signals across thermal, battery, and control systems.
- Led design and implementation of a production-grade Bill of Materials (BOM) quality platform for 21 vehicle variants with  35K parts per variant, implementing 13 automated quality checks critical to vehicle part release and cost auditing.
- Delivered a business-critical system to production within two sprints (15 days), owning frontend, backend, data pipeline, and cloud infrastructure end-to-end.
- Designed and implemented an event-driven architecture using GCP Eventarc, Cloud Storage triggers, scheduled jobs, and MongoDB to process and validate high-volume BOM files in near real time for 200+ users across the ECM organization.
- Replaced manual Excel-based audit workflows with a fully automated reporting and dashboarding pipeline, improving audit accuracy and significantly reducing turnaround time.
- Built executive dashboards to track change actions, ownership, and approval bottlenecks for vehicle part release workflows used by C-suite stakeholders.
- Developed software release management tools for over-the-air (OTA) update workflows, enabling vehicle software teams to manage releases, traceability, and approvals through a unified platform.
- Built AI-assisted automation to remediate 42+ production security audit findings, improving security posture and compliance across APIs.

**Nedd Technologies**                                                                      05/24 – 08/24
*Founding Engineer*                                                                            *Houston, USA*
- Led end-to-end development of an ESG platform, taking the product from concept to a production-ready demo within **2 months** as the founding engineer.
- Designed and built a full-stack application using Flask and Next.js, implementing the core data model with **60+ PostgreSQL tables** across ESG and regulatory domains.
- Built CI/CD pipelines using Azure DevOps, reducing deployment time by **50%** and decreasing production issues by **60%**.

**HSBC Technology India**                                                               08/21 – 06/23
*Software Engineer*                                                                            *Pune, India*
- Led development of the Load Trade Archive Service, a microservice-based platform supporting Bloomberg's production Load Trade system.
- Built a UI to provide filtered access to XML and CSV trade files, reducing weekly IT team search time by **30 minutes** per member.
- Built automation using Ansible Tower and Spring Boot to verify **100%** of change requests and reduce deployment errors by **85%**.

## TECHNICAL SKILLS

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| **Languages:** | Python, Java, TypeScript, JavaScript, SQL, C++. |
| **Frontend & Backend:** | React, Next.js, FastAPI, Flask, Spring Boot, Node.js, Express.js. |
| **Cloud / Data / AI:** | GCP, Azure, Terraform, Docker, CI/CD, PostgreSQL, MongoDB, Redis, Kafka, Pandas, NumPy, PyTorch, TensorFlow. |

## EDUCATION

**Rice University**                                                                             Aug 2023 – Dec 2024
*M.S. Computer Science*                                                                      *Houston, TX*
**Vishwakarma Institute of Technology**                                          Aug 2017 – Jun 2021
*B.Tech. Computer Engineering*                                                          *Pune, India*