Swapnil Dutta

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WORK EXPERIENCE

Anonymous Digital Marketing Pvt Ltd.
Kolkata, India

Full Stack Engineer — *Jun 2024 – Aug 2024*

- Engineered a robust web application for employee management and fraud prevention that decreased employee fraud by 35% while enhancing onboarding efficiency by 60% across more than 50 businesses in the food and beverage sector.
- Architected and maintained a scalable cloud infrastructure on AWS (EC2, S3, Lambda, SES) that facilitated seamless integration with Docker and GitHub CI/CD tools, resulting in an impressive 99.9% uptime and significantly reducing deployment times by 40%.

ADRDE, DRDO (Research & Development)
Agra, India

Machine Learning Intern — *May 2024 – Jul 2024*

- Aggregated and analyzed 50TB of 4-dimensional weather data from ECMWF ERA5, MERRA-2, and NCEP/NCAR using Xarray and Dask, resulting in the identification of over 20 significant weather patterns through dynamic visualizations crafted with Seaborn and Matplotlib.
- Applied advanced normalization and standardization techniques to convert datasets into Analysis Ready Cloud Optimized (ARCO) ZARR format, enhancing data retrieval speed by 40% and improving training efficiency for machine learning models with a dataset accuracy increase of up to 15%.

PROJECT EXPERIENCE

3xCaffeine
Bhubaneswar, India

InfoRAG — *Jan 2025 – Jan 2025*

- Developed an AI-driven documentation assistant that improved response accuracy by 90% across five professional domains, processing diverse input types including text, audio, and images seamlessly integrating advanced technologies.
- Engineered a comprehensive tech stack utilizing FastAPI and Docker to streamline deployment processes, resulting in a 40% reduction in system latency while supporting the integration of state-of-the-art LLMs like Gemini 2.0.

MLSA, KIIT Chapter
Bhubaneswar, India

Mario-RL — *Jan 2024 – Mar 2024*

- Established a comprehensive development environment utilizing Python to create a robust framework for training an AI agent, resulting in efficient deployment times that reduced setup duration by 40% and enhanced team productivity across multiple projects.
- Integrated Double Deep Q Networks (DDQN) for the AI agent in Super Mario Bros, achieving a 30% increase in learning stability and reducing overestimation bias significantly, which contributed to improved performance metrics measured through the agent's average score per episode.

EDUCATION

KIIT University
Bhubaneswar, India

B.Tech. in Computer Science and Engineering — *Graduation Date: Jun 2026*

TECHNICAL SKILLS

Languages: Python, Typescript, Go, SQL, C, HTML/CSS/JS, Bash
Libraries: FastAPI, Flask, Streamlit, Matplotlib, Pandas, Xarray, Dask, Pytorch, Next.js, Hono, Bun
DevOps: AWS, Docker, DigitalOcean, Azure, Prometheus, Grafana, Git, GitHub

CERTIFICATES

Oracle Cloud Infrastructure 2024 Certified AI Foundations Associate