Reet Nandy

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Professional Summary

Software Engineer with **2+ years** of internship experience in cloud-native development, distributed systems, and DevOps. Skilled in optimizing infrastructure, building scalable pipelines, and designing high-performance APIs across fintech, defense, and research.

Education

New York University | *Master of Science in Computer Science (GPA: 3.7/4.0)* **Expected May 2025**

- **Relevant Coursework**: Data Structures and Algorithms, Operating Systems, Cloud Computing, Big Data and Analytics, Relational Database, Software Engineering, Computer Networks, Object-oriented Design, Probability and Statistics
- **Graduate Teaching Assistant** for CS GY 6233 - Operating System
- **Grader** for CSCI UA 0310 - Algorithms

Manipal University Jaipur | *Bachelor of Technology in Computer Science (GPA: 8.89/10.0)* **May 2023**

Technical Skills

Languages: Python, C/C++, Java, Dart, Go, TypeScript (TS), Rust, Shell, HTML/CSS, JavaScript (JS).
Frameworks: Django, Flask, Express.js, FastAPI, Spring Boot, Node.js, React.js.
DevOps/Cloud: Docker, Kubernetes, Jenkins, Terraform, Ansible, AWS (EC2, S3, Lambda, Cloudwatch), GCP, Azure.
Databases: MySQL, PostgreSQL, Cassandra, MongoDB, Redis, Elasticsearch, DynamoDB, Kafka, SQLite.
Other: RESTful/GraphQL APIs, Postman, ELK Stack, OAuth/JWT, Git, Linux, Postman, OpenAPI, CI/CD Pipelines.

Technical Experience

Mobility Intelligence June 2024 - Present

Backend Developer Intern (AI) *- Scikit-learn, Data Preprocessing & Visualization, Regression, Time Series* *New York City, NY*

- Designed Python/SQL ETL pipelines with Apache Airflow, boosting data ingestion speed by 30% and ensuring reliability with automated validation.
- Built RESTful APIs using Flask and joblib to deploy machine learning models, improving real-time phone price predictions and application responsiveness by 25%.
- Deployed a Regression model with, enhancing price prediction accuracy by 15% through advanced feature engineering and hyperparameter tuning.

Defence Research & Development Organisation (Govt. of India) January 2023 - June 2023

Software Engineering Intern (R&D) *- Python, Shell, PyQT, MatPlotLib, SerialPy, SQL, Docker* *India*

- Advised the Assistant Director of the Lab as the sole selected intern from a team of 20+, leading a project on heavy vehicle integrity estimation using LIDAR and GPS sensors.
- Architected and published a Python desktop application under 30MB to reverse engineer RS232 serial ports, decoding 1.5M+ bytes/second from LiDAR sensors and applying 25+ algorithms to analyze and visualize rut measurements.

Solar Industries India Ltd April 2022 - December 2022

Software Engineering Intern (Backend) *- Django, FastAPI AWS, Docker, Jenkins, Kafka, Redis, Elasticsearch* *India*

- Led a team of 5 interns to automate manual tasks across 25+ industrial plants, introducing 5 Python-based projects and deploying 75,000+ lines of production code.
- Optimized systems with 5 cross-functional teams to handle 100,000+ API requests across 20 endpoints, executing CRON operations on 2.5M rows/day within 1 sec using Cassandra, Kafka, and Postgres.

Projects

LLM based application to streamline tasks from multiple communication channels Stack: Python, Flask, Postgres, ReactJs

- Developed an open-source app that reads communication from gmail, slack, trello and automatically updates your calender.
- Achieved capabilities to store conversation-specific and global context to update existing tasks based on new information.

Performance Optimization and Analysis of Disk I/O in a Real Linux Environment Stack: C++, Linux, Shell, Git

- Achieved a 500% enhancement in cached reads and a 150% boost in non-cached reads, elevating read speeds from the local setup of 2500 MiB/s to 15000 MiB/s on a block size of 65536 bytes.
- Accomplished 100% of improvement on I/O performance using lseek system call.

Fitness Analytics Dashboard *Stack: Python, Django, Postgres, DynamoDB, EC2, Sagemaker, SNS, SQS, ReactJs*

- Architected AWS services to host a Flask application on EC2 providing seamless integration with Google Fit metrics.
- Implemented serverless data processing using Lambda, and k-NN based exercise prediction using AWS SageMaker.