

## CORE COMPETENCIES

- System Architecture Design
- Performance Optimization
- User Experience Enhancement
- Data Management
- Security Best Practices
- Project Management
- Software Development Life Cycle
- Business Process Automation
- Technical Documentation

## EDUCATION

- Bachelor of Technology in Information Technology, Netaji Subhash Engineering College, Kolkata, West Bengal- 2023  
GPA: 9.00

## TECHNICAL SKILLS

- TypeScript
- ES6 JavaScript
- Python
- Node.js
- NestJS, ExpressJS, Flask
- MongoDB, Postgresql
- React
- AWS (S3, EC2, SNS, SQS, SES, Lambda)
- Docker, Kubernetes, GCP, CI/CD, Git
- REST API, OOPS, Webhook
- Microservices, Redis, Kafka, Rabbit MQ
- Agile Scrum, Jira

## PERSONAL DETAILS

- Date of Birth: 19<sup>th</sup> December 2001
- Address: Bangalore- 560066, Karnataka
- Languages Known: English and Hindi

## DIPIKESH KUMAR



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## PROFILE SUMMARY

- Gained experience of over 2 years in **software engineering** with expertise in **Backend Development, REST API, Background services, client-server architecture, NestJS, AWS, and system design.**
- Skilled in building **scalable Microservices, optimizing database performance, and integrating AI-driven LLM Models (Open AI)** solutions. Experienced in **Docker, Kubernetes, GCP and CI/CD pipelines**, ensuring seamless **deployment and high availability** of applications.
- Realized a notable increase in **system performance** by designing and implementing a data aggregation pipeline, which led to a **55% boost** in overall operational efficiency **handling multiple databases, migration, and scripting**



## WORK EXPERIENCE

Software Engineer, Markopolo AI, Dhaka, Bangladesh  
Aug'22 – Present

### Key Result Areas:

- Managed the design and implementation of **Marktag Pixel**, a **first-party server solution** that improved **web tracking accuracy by 40%**, enabling **uninterrupted user identification** and **reducing data loss by 35%** through **innovative data collection methods.**
- Innovated and developed a comprehensive analytics dashboard back-end that consolidates sales reports and campaign data from 5+ advertising platforms, optimizing schema for rapid data retrieval speed exceeding 200 ms using **Typescript, NestJS, MongoDB and Redis, React, Git** considering **rate limitation** and **pagination** of API.
- Implemented **Redis** as Caching service to cache complex query and handle its failure.
- Created a robust email notification system utilizing **AWS services (SQS, SNS, SES)**, enabling efficient bulk email handling with **10000+ users monthly** avoided throttling with real-time metrics tracking and data-driven optimization for campaigns.
- Integrated **OpenAI API** for **AI-generated personalized content**, enhancing engagement and conversion rates for the campaigns in **Python, Flask..**
- Architected robust **Queuing** solutions with **RabbitMQ** to automate workflows, achieving an increase in message throughput from 10K to over 50K messages daily while ensuring zero data loss during high-traffic periods.
- Supervising **webhook** integrations to manage scalable event data from e-commerce platforms, ensuring data validation and integrity.
- **Collaborating with cross-functional teams** to ensure seamless integration of various technologies and platforms using **Oauth2.0** considering **security and data protection..**, enhancing overall project delivery.

### Highlights:

- **Implemented Kafka** consumers and producers to facilitate efficient event data processing and streaming, considerably reducing read/write operations by 75% and enhancing system responsiveness.
- **Designed and built SaaS** platforms from the ground up, focusing on modular architecture, performance optimization, and seamless user experience.
- Redesigned and deployed a **Cron-based data aggregation** pipeline that **minimized database read/write operations by 60%**, thereby improving overall system performance by 30%.
- Wrote and maintained **unit/integration tests** using **Mocha & Jest** for system reliability.
- Started **Swagger API documentation** for structured API reference.



## INTERNSHIP

**Back-end Intern, Appyhigh Technology, Hyderabad**

**Jun'22 – Aug'22**

### Key Result Areas:

- Developed a Slack webhook integration to retrieve and analyze server error data, enabling proactive monitoring and efficient error reporting within team collaboration channels.
- Collaborated with senior developers to troubleshoot technical issues, enhance software quality, and improve user experience through seamless back-end & front-end integration.
- Contributed to the development of a microservices architecture, improving system modularity, scalability, and ease of updates and maintenance for back-end services.



## PROJECTS

### Email Task Reminder, 2022

- Developed background service scheduled tasks using Cron jobs to send emails to users, implemented JWT-based authentication, and performed OTP email verification via Nodemailer.

### Highlight:

- Enhanced productivity by 40% through the use of Winston and Morgan for logging and debugging, addressing errors with an error handler and conducting testing using Chai.