

# Payel Das

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## Professional Summary

Software Engineer with 3+ years of experience in Java, C#, .NET, AWS, and distributed microservices backed by MySQL. Skilled in event-driven architecture, REST APIs, and scalable backend systems, with a strong focus on performance, reliability, and automation. Known for clear communication, collaborative execution, and owning features end-to-end in Agile environments.

## Technical Skills

**Programming Languages:** Java, Python, .NET, C#, JavaScript, SQL, Shell, Korn Shell, JSON, HTML, CSS, OOP

**Web Technologies & Security:** REST APIs, Django, IAM, AWS Secrets Manager, VPC, Subnets, Defensive Coding, OWASP

**Frameworks & Libraries:** .NET, React.js, Node.js, Selenium, Reusable Components, Spring Boot, Large System Architecture

**Cloud & Infrastructure:** AWS Cloud Architecture (S3, Lambda, EventBridge, SQS), Terraform (IAC), Kubernetes, Docker

**Databases:** MySQL, PostgreSQL, Amazon DynamoDB, Snowflake, NoSQL, MongoDB, Relational Database Design

**Operating Systems:** Windows, Linux / Unix Administration (basic shell scripting, process monitoring, file systems, log analysis)

**AI Tools & Productivity Models:** OpenAI (GPT-4V), Claude (Sonnet-4.5), CursorAI, GitHub Copilot, Microsoft Copilot

**Observability & Monitoring:** Amazon CloudWatch, Kibana (Stathub), Linux logs

**Architecture:** Event-driven design, Distributed systems, Microservices, Large-scale system architecture

**DevOps & Collaboration Tools:** CI/CD Pipelines, Azure, Jenkins, Agile/Scrum, SDLC, Git, Jira, Maven, Bitbucket

## Professional Experience

### Software Development Engineer II | CSG Systems International

**Jan 22-Present**

*Software Engineer Intern -> SDE Graduate -> SDE I -> SDE II*

**Tech Stack - JAVA, AWS, Python, Terraform, C#, .NET, SQL, CI/CD, Linux, Shell, Azure DevOps, AI Tools, Snowflake**

- Engineered scalable **microservices** in **Java** with modular REST APIs deployed across multi-region **AWS environments** using **Terraform (IaC)**, improving reliability & scalability by **45%**.
- Architected and managed multiple environments using **JAVA, AWS, and Terraform**, enabling highly scalable, **event-driven microservices**, enabling asynchronous communication, and improving system throughput & fault isolation.
- Refactored legacy WCF services into **RESTful APIs**, designing optimized **JSON-based workflows**, improving performance by **80%** and reducing maintenance overhead to **near-zero** while modernizing service architecture.
- Designed secure **production-grade AWS access patterns** using **IAM** and **Terraform**, ensuring compliant, reliable, and production-grade deployments aligned with enterprise security standards supporting **cloud-native microservices**.
- Implemented high-performance **caching layers** using **encrypted API data caching** in **DynamoDB** and AWS services, improving cost-efficiency, **API throughput**, and reducing redundant api service calls by **65%**.
- Developed **fault-tolerant automation** and **debugging** frameworks using **JAVA, Python & CloudWatch**, reducing manual recovery by **90%** and improving system observability with proactive error handling and test coverage.
- Architected **event-driven data pipelines** using AWS messaging (**SQS/EventBridge**), enabling **real-time ingestion** and distributed activity reporting for large-scale product experiences and scalable **message decoupling** across microservices.
- Automated **SSL certificate lifecycle** with **C#/.NET** to eliminate manual renewal effort and strengthen API security, aligning with defensive coding / secure engineering principles.
- Improved backend **response reliability and testability** by redesigning structured JSON outputs in **C#** and **.NET**, **reducing client-reported defects by 20%** and accelerating debugging cycles.
- Enhanced observability, error reporting, debugging, and monitoring using **CloudWatch, Kibana**, and **Linux logs**, ensuring reliable **production-grade deployments** and faster issue isolation.
- Owned **feature delivery end-to-end**, requirements, design, coding, automated testing, deployment, performance validation & production support, ensuring reliable releases and zero-regression rollouts.
- Mentored** peers on AWS, Terraform, and CI/CD, **collaborated** with **cross-functional teams** to streamline deployment workflows, accelerate release velocity, and enable reliable, scalable delivery across distributed microservices.

### Software Engineer Intern | HighRadius

**May 21-Jan 22**

**Tech Stack - JAVA, Python, Selenium, Regex, React.js, Node.js, HTML, CSS, ML, Jenkins, GitHub, JavaScript**

- Built **automated** data pipelines using **Java, Selenium, Regex**, and **SQL** to extract, validate, and store structured datasets, eliminating **60%** manual work and **improving throughput and data accuracy by 40%**.

## Education

### Bachelor of Technology (B.Tech) in Information Technology - CGPA: 9.31 / 10

**Jul 18-Jul 22**

*Kalinga Institute of Industrial Technology (KIIT University), Bhubaneswar*

## Projects

**Smart Payment Prediction Platform** – Architected a **scalable SaaS analytics platform** using Java/Spring Boot, React.js, Python, and REST APIs, integrating **ML-driven forecasting**, modular backend, and reusable **front-end components** to deliver **60% higher prediction accuracy**, improving data processing, and streamlined **end-to-end user experience**.

## Achievements

- Awarded the **Leap Trailblazer Award (2023)** for outstanding professional growth and innovation in software engineering, recognizing excellence in problem-solving, continuous learning, and embodying CSG's guiding principles.
- Certificate in **Amazon Web Services Cloud Practitioner** (Nov 2025)
- Google Gloud Badges: **Prompt Design in Vertex AI** (Nov 2025)