Pankaj Kumar

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EDUCATION

DUAL DEGREE, IIT KANPUR
MAJOR IN, MATHEMATICS & STATISTICS
MINOR IN, COMPUTER SCIENCE
CPI - 9.3/10| 2015 - 2020

COURSEWORK

COMPUTER SCIENCE
Machine Learning
Artificial Intelligence
Principles Of Database Systems
Data Structures and Algorithms

ONLINE COURSES
Java Multithreading
Java Advanced Concepts
Java Memory Management
Spring Boot & Hibernate
Redis Data Structures
Apache Kafka Fundamentals
AWS Certified Solutions Architect
Fundamentals of Back-end Engineering

SKILLS

PROGRAMMING

Languages
• Java • Go • Python • C/C++

Frameworks & Libraries
• Spring Boot • Flask

Databases
• MySQL • Postgres
• MongoDB • Redis
• Influx DB

Message Queues
• Kafka • SQS • Rabbit MQ

AWS
• Route 53 • ECR • EC2 • S3
• Lambda fxn • Cloud Watch

Deployment
• CI/CD • Jenkins • Celery
• Docker • Kubernetes
• Git • GitHub Actions

Tools
• Maven • Bazel
• Junit • Mockito • Pytest
• JPA • Hibernate • SqlAlchemy
• GRPC, REST

EXPERIENCE

3 years of experience in developing high-performance, data-intensive, and scalable backend applications using cutting-edge technologies. Proficiency in solving complex problems through systematic design, with a strong foundation in Data Structures and Algorithms.

OCROLUS | SOFTWARE ENGINEER | GURGAON, INDIA
Mar 2023 - Oct 2023 | Detect Team
- Designed and Implemented a **Fraud Detection** Service for seamless identification of suspicious documents, facilitating confident lending decisions and averting approval of fraudulent applications. Presently, the service processes more than **50k** documents daily.
- Involved in design discussion, development, code review, testing and deployment with complete ownership.
- Implemented a generic workflow using **Solid Principles** & **OOPs concept** to generate signals and visualization for different kind of docs like paystub, bs
- **Tech Used**: Python, Go | Flask | Pytest | Kafka, SQS | Postgres, Redis | Grafana

CLEARTAX | SOFTWARE ENGINEER | BANGALORE, INDIA
Aug 2020 - Feb 2023 | GST Team
- Developed an E2E **indirect tax filing platform** capable of handling a monthly txn volume of 100k. Streamlined tax compliance processes, resulting in reduced errors, improved accuracy, and significant benefits for businesses and govt
- Proficient in all stages of the software development cycle using **Agile methodology**, from planning and design to coding, testing, deployment.
- Successfully refactored legacy code using **Design Patterns** & **Solid Principles**, resulting in a **25%** reduction in latency by eliminating deprecated API calls, **optimizing** various db queries, implemented IP address based rate limiting
- Created a **licensing** and **metering service** to enforce license purchases and renewals, effectively reducing instances of unauthorized use by **40%**
- Integrated **Govt APIs**, established **integration test** and **CI/CD** pipeline, configured monitoring tools like **metrics**, **alarms**, **logging**, and **dashboards**.
- Improved the **on-call** process by hosting training sessions, providing retools, and automating various processes, resulting in a **30%** decrease in ticket velocity.
- **Tech Used**: JAVA | SpringBoot | Junit | Kafka, SQS | Jenkins | AWS services | Docker, Kubernetes | MySQL, MongoDB, InfluxDB, Redis | Vault | Grafana

PROJECTS

TAXI FARE PREDICTION | REPORT, PROF. FAIZ AHMED
May 2019 – July 2019 | IIT Kanpur, India
- Designed model which predicts fare on various factors, with optimal accuracy
- Performed EDA on data using data visualization tools and techniques
- Employed Linear regression, Lasso, Random Forest and Artificial Neural Network models on the pre-processed data
- Model predicted fare with error $\pm 5\%$ compared to actual fare predictor device

ACHIEVEMENTS

- **Spot Award Winner**: For exemplary work done in licensing service project
- **Academic Excellence**: Received A* grade for exceptional performance in various courses in undergrad and postgrad