

# 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

Data Mining

Machine Learning

Fundamentals of computing

Principles Of Database Systems

Data Structures and Algorithms

### STATISTICS

Non-Linear Regression

Bayesian Analysis

Applied Stochastic Processes

Probability and Statistics

Linear Algebra

Ordinary Differential Equations

Partial Differential Equations

## SKILLS

### PROGRAMMING

#### Languages

• Java • C/C++ • Python

#### Frameworks & Libraries

• Spring Boot • Drop Wizard

#### Databases

• MySQL • MongoDB

• Influx DB • Redis

#### Message Queues

• Kafka • SQS • Rabbit MQ

#### AWS

• EC2 • Route 53 • S3

• Lambda fxn • Cloud Watch

#### Deployment

• CI/CD • Jenkins

• Docker • Kubernetes

• Git • GitHub Actions

#### Tools

• Junit • Mockito • Maven

• JPA • Hibernate

### OTHER SKILLS

• System Design • OOP

• Grafana, Newrelic, Coralogix, Scalyr

## EXPERIENCE (2.2 YEAR)

### CLEARTAX | SOFTWARE ENGINEER | BANGALORE, INDIA

Aug 2020 - Present | GST Team

- Led the design and development of multiple enterprise-level **micro-service** applications, driving **1M** dollar of revenue every year using latest technology
- Designed and implemented highly **reliable, scalable, maintainable & secure** applications that serve more than **1K** requests per day.
- CI/CD setup, poc, load testing, unit/integration/e2e testing, code reviews
- Maintained monolithic legacy code, **optimized** various db queries, reduced **api latencies**, migrated monolithic application to micro-services
- Features implemented in monolithic: Integrated many **Govt APIs** with Clear software, GSTR forms validation service, Notification service, Licensing service
- Worked as a system and customer on-call, given L2 training, provided various retools and automated many process which decreases ticket velocity.
- **Designed, Planned & Developed** GSTR forms from scratch and deployed to production, which is the primary source of revenue under GST product in clear
- **Tech Used:** JAVA | DropWizard, SpringBoot | Kafka, SQS | Jenkins, Docker, kubernetes | MySQL, MongoDB, InfluxDB, Redis | Grafana, GitHub Actions

## 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

### FAKE NEWS DETECTION | REPORT, PROF. ARNAB BHATTACHARYA

Jan 2019 – May 2019 | IIT Kanpur, India

- Designed model to classify articles as real or fake and act as a filter for articles
- Performed pre-processing, tokenization, word stemming to convert text documents into features vector using NLTK
- Used feature set as a body text, title, body + title, and applied Logit, Naïve Bayes, ANN, and Support vector machine for classification
- Compared results obtained from different classification technique, out of which SVM gave an average accuracy of 93%

## 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
- **Award Winner:** Received school topper award for getting 10/10 in cbse board

## VOLUNTEER EXPERIENCE

- Mentored fresh graduate in programming, mathematics behind ML models, career advice, coding interview prep, professional portfolio
- **Numerical Computations:** Taken doubt clearing session, designed and reviewed programming assignments for the course consisting of 100+ students.