# **Pradipt Kalamkar**

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#### **EDUCATION**

## New York University - Master's in Computer Science

New York, NY

- Coursework: Design & Analysis of Algorithms, Database Systems, Computer Vision, Human Computer Interaction.
   University of Mumbai Bachelor's in Computer Engineering
   Mumbai, India
- Coursework: Database Mgmt System, Computer Networks, Big Data, Data Visualization, Project Management.
- Achievements: Mathletes: Winner (2X), KIM talks: "Mathematics in Today's World", Hackathon 2019 Finalist.

## **WORK EXPERIENCE & PROJECTS**

### JEFFERIES GROUP LLC

New York, NY

SOFTWARE ENGINEER, COMPLIANCE TECH & AUDIT REPORTING

AUG 2022 - PRESENT

- Managed Trade and Communications Surveillance initiatives, leveraging AI to monitor and supervise 10,000+ firm communications & over 28 million trading activities, resulting in the detection and prevention of instances of insider trading, fraud, and other high-risk behaviors preventing over \$1.5 million in potential fines/penalties by FINRA/SEC
- Accomplished 99.98% trade reporting compliance & timely reporting of 800K pre-trade, trade and post-trade
  transactions while identifying and rectifying issues related to OATS, CAT & other regulatory mandates. Remodeled
  a robust Trading Control Framework for 1000+ financial instruments, enhancing efficiency & risk management.

**NEXT LEVEL 30** 

**Hoboken, NJ** *MAY* 2022 – *AUG* 2022

SOFTWARE ENGINEER, MARKETING ANALYTICS

- Analyzed data from 22.5K potential customers, including monthly active users, and used outputs to guide marketing and product strategies, which resulted in an increased average customer engagement time by 2x, a decreased dropoff rate by 43%, and a total generation of \$100K in ongoing funding over a 4-week timeframe.
- Revised campaign strategies based on quantitative PowerBI analytics, identifying key attributes to boost brand awareness and program efficacy, translating into a 23% surge in monthly revenue. Leveraged analytical proficiency, delivering actionable insights from numerical data for the Marketing team and boosting brand visibility by 18%.

APSIT

Mumbai, India

SOFTWARE DEVELOPER, COMPUTER VISION

JAN 2019 – DEC 2020

- Developed & implemented system to accurately detect unusual human activity in public places with 92% accuracy, resulting in a 23% decrease in false alarms. Preprocessed input video frames & optimized the model by reducing white noises through dilate functions, ensuring more efficient human movement detection
- Programmed a model featuring OpenCV, Python3, NumPy and Jupyter Lab IDE for image thresholding & shape analysis/detection, yielding 200x faster optimization than conventional methods and increasing efficiency by 25%.

## Offside Detection in Soccer using digital Image Processing solutions (Capstone)

Thane, India

- Engineered an image processing model to improve Video Assistant Refereeing (VAR) process, utilizing Python3, NumPy, SciPy, Pandas, Tensorflow & Google Collab IDE to reduce 98% of processing time.
- Facilitated analysis of traditional VAR procedures by spearheading a 3-person team in devising a faster solution that
  improved the game's quality. Generated actionable insights through data exploration and predictive modeling
  resulting in increased accuracy and reliability of on-field decisions with an 85% reduction in faults.

#### Soil Moisture Detection using Machine Learning model

New Delhi, India

- Developed a supervised ML model using linear regression in Python3, accurately predicting soil moisture levels
  post-harvesting of crops to facilitate optimized descendant selection maximizing soil quality and minimizing erosion.
- Analyzed **30K** records spanning **20** years of data detailing amounts of rain, soil type & available sunlight, resulting in a **5%** reduction in prediction error compared to previous models.

## Cryptoguru- A Live Cryptocurrency Price teller chatbot

Thane, India

 Developed an interactive Chatbot with HTML, CSS & JS, responding to customer queries on live cryptocurrency pricing. Mined data from Crypto Compare API improving loading times by 45% & optimizing performance by 25%.

# Web Development: Online Polling System

Mumbai, India

• Constructed a Web platform with HTML, CSS, MySQL and PHP featuring multiple polls (create/respond) to encourage greater student-user engagement resulting in 60% usage growth within a month & 82% satisfaction rate.

### TECHNICAL SKILLS

- Languages/DB: C++, Python, Go, R, Java, SQL, Javascript, Typescript, JSON, MySQL, PostgreSQL, MongoDB.
- Framework/Libs: Angular, Spring Boot, React, Node.is, iQuery, Django, Tensorflow, Flask, NextJS, Pytorch, Spark.
- Tools: AWS, Elasticsearch, Redux, JUnit, Jest, pytest, Kafka, Git, Docker, Jenkins, Ruby on Rails, Databricks, Redshift, DynamoDB, CI/CD, S3, Airflow, Hadoop, MapReduce, Firebase, Snowflake, Terraform, REST APIs, ETL.
- Microsoft Power BI: Prepare, Model, Visualize and Analyze Data & Deploy and maintain deliverables.
- Cloud Computing Services: Google Cloud Platform: Compute Engine, Virtual Machines, Cloud Infrastructure
  and Architecture, Load Balancing, Autoscaling, Kubernetes, VPN, Site Reliability Engineering, Disaster Recovery.
  Microsoft Azure: Azure Portal, PowerShell, CLI, Resource Manager (ARM), DDoS Protection, TCO Calculator.
- Other Skills & Operating Systems: Web Scraping, Data Analysis, Pattern Recognition, Portfolio Management, JIRA, Scrum, Agile Methodology, MS Office-Word, Excel, Powerpoint, Windows 10/8/7, MacOS X, Linux.