

## KISHAN PANDEY

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**B.Tech: CIVIL ENGINEERING** M.Tech: ARTIFICIAL INTELLIGENCE MACHINE LEARNING



## **EDUCATION**

Degree/Exam Institute Year

2024 Dual Degree (4+1)Year course Indian Institute of Technology Kharagpur 2018 Senior Secondary Certificate Central Board of Sec Education - Jabalpur 2016 Higher Secondary Certificate Central Board of Sec Education - Jabalpur

## INTERNSHIPS

**Dewinter Optical Inc.** [May'22-July'22] Machine Learning

Monetized the Commercial Hardware product for a German Microscope company assiting in the model training part of software integration

- •Used transfer learning, leveraging YOLOv5 model for 5-class white blood cell detection and classification with mean average precision of 0.78
- •Achieved 2 fold improvement in men average precision by annotation and augmentation of live blood sample from 2000 images dataset to 6000 images
  •Achieved increase in mean average precision in YOLOv5s model training on AWS EC2 instance, reducing computation time by 40% for enhanced efficiency

Consultant, Slalom Algorithms R&D [Dec'22-Jan'22]

- Grew an Al-Based tech startup project from pre-seed funding stage; working on backend in collaboration with a team of consultants
  •Reduced 3+ hours of manual compute time per algorithm to 16 secs by automating the hyper-parameter tuning process through Optuna framework
- •Boosted performance by 28% enabling automatic feature generation using Feature Tools framework; created a new stream of multivariate algorithms
- •Increased prediction efficiency of customer-facing portal by 125% by implementing winner of M4 competition Exponential Smoothing RNN &N-BEATS

Cars24 **Product Management** [May'23-July'23]

- Reduced checkout funnel dropoff rate from 21% to 10% by revamping the Order Summary page of Cars24 Australia via A/B testing

  •Discovered the pain points of 300+ users by analyzing product pipline Hotjar dropoff recordings, User call recordings, direct calling 50+ dropoff users

  •Achieved 15% reduction in cart abandonment rates and a 10% increase in the overall conversion rate by Identifying 5 checkout funnel enhancements

  •Ensured successful A/B testing by spearheading the process of Amplitude and Google Analytics event mapping along with 10+ Software feature testing

### **PROJECTS**

## **Pavement Distress Severity Estimation**

#### M. Tech Project-1

[July'23-Nov'23]

Detection, Quantification and Severity Estimation of the distresses in Pavements of Indian roads using Deep learning models and frameworks • Applied YoloV5 and U-Net, employing transfer learning, to segment an extensive dataset of 8000+ images and extended the approach to video data • Collaborated with stealth startup and hosted the model in Engineered interactive Streamlit app to visualize model results, enhancing data analysis

## Chemical Named Entity Recognition

#### Design-Lab IIT Kharagpur

[Mav'23]

- Executed a Natural Language Processing project, identifying chemical named entities within dataset, showcasing analytical competence •Succesfully applied Named Entity Recognition(NER) technique to classify chemical substances and reaction conditions from text descriptions of data
- •Leveraged Spacy to analyze specific chemical text entities and Brat Rapid Annotation Tool to manually annotate text data to achieve an f1 score of 0.61

### COMPETITION/CONFERENCE

## Warehouse Demand Forecasting

# Inter Hall Data Analytics | Nihilent Ltd.

[Mar'22]

Inventory requirement forecasting for a fan manufacturing company for a month in advance to reduce low fill rate problems faced in warehouse •Reduced the memory requirements by clustering over 1000+ time series data with dynamic time warping to represent them using only three time series
•Utilized Auto-ARIMA, FB Prophet ,XG-BOOST models to achieve a 0.34 mean average precision error, showcasing strong predictive analytics skills

## POSITIONS OF RESPONSIBILITY

### MMM Hall of Residence, IIT Kharagpur

#### Hall President

[Aug'22-May'23]

- Elected by a student body of 1100 students leading a team of 10 Gen. Sect. and 40 Sect. orchestrating 50+ events across 9 portfolios in 2 semesters
- Oversaw İNR 0.58 Cr student hall fund, driving initiatives in areas like Hall Maintenance, Student Welfare, Mess, Alumni, So-Cult, Tech, Sports, Gardening
- Led resolution of critical concerns within the Institute's general body, encompassing matters such as mess facilities, illumination, General Championship
- Achieved first podium(Silver) with a team of over 100 hall boarders in the Annual Illumination competition, surpassing 18 participating halls of residence

#### Technology Comedy Club, TSG IIT Kharagpur

#### Governor

[Jul'22-May'22]

- Successfully registered the club under Technology Students' Gymkhana within 2 years of initiation with highest club strength of 70 student members
- Executed 10+ online comedy events including "Wonder Women of Comedy", hosting 5 female comedians, promoting the club among female students

## TSG, IIT Kharagpur

## Officiating Secretary Student's Weflare

[Jan'21-July'21]

Resolved student's concerns during COVID in academic and mental well being domain with a co-secretary assiting two General Secretaries Welfare
 Ideated and implemented 8 online seminars like Zumba & mental well-being hosting pyschologists to help students cope with mental stress of exams

### **COURSEWORK INFORMATION**

IIT Kharagpur: Programming & Data structures | Machine Learning F & A | Probability and statistics | Deep Learning F & A Online courses(Board Infinity &Udemy): Machine learning | Python for ML | Statistics | Finance, Accounting Modelling and Valuation

## SKILLS AND EXPERTISE

Softwares: MS Office, Tableau, Jupyter, Google Analytics, Matplotlib, Scikit Learn Cloud: Amazon Web services Languages: Python, C,C++, SQL

# EXTRA CURRICULAR ACTIVITIES

- Social Impact: Conducted 2 donation rounds for orphan girls donating essentials such as ration, bedsheet, pillow, mattress, stationary, new Laptop
- •NCC: National Cadet Corps B certificate holder; Completed 10 days training camp and won 3 medals for athletic excellence and hosted a cultural program •Cultural: Played the lead role in the first submission of MMM Hall Inter Hall short filmmaking competition leading a team of 10 student filmmakers