# **ANKUR TIWARI**

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#### PROFESSIONAL SUMMARY

Experienced Assistant Professor with 6 years of academic expertise in Mechanical Engineering, Design & Robotics seeking a challenging role as a Robotics Engineer to apply my technical knowledge and problem-solving skills in a dynamic and fast-paced environment.

# **WORK HISTORY**

# **Inbound Customer Service Representative,** 10/2022 – Current

Ant Marketing - Sheffield, United Kingdom

- Used critical thinking to break down problems, evaluate solutions and make decisions.
- Completed duties to deliver on targets with accuracy and efficiency.
- Delivered exceptional customer service by proactively listening to concerns and answering questions.
- Engaged with stakeholders to build relationships and brand awareness.

## **Assistant Professor**, 09/2018 – 09/2021

# Government College of Engineering – Bhawanipatna, Odisha

- Conducted 21 days Robotics workshop funded by TEQIP in association with NASSCOM and trained 80 students.
- Assisted in procurement of Solid-Works, Matlab & 6-axis CNC milling Machine as a member of procurement cell.
- Successfully administered the installation of several experimental setups meanwhile also developing their lab manuals acting as lab-in charge of Theory of Machine lab & Machine Design lab.
- Training on Future Skills Technologies: Robotics & Automation" organized by IIT Roorkee and acquired hands on learning experience in programming KUKA robotic manipulator for stacking based task
- Attended "3rd SERB Summer School on Robotics" organized by IIT Delhi
- Developed Mechatronic systems for Human Rehabilitation in collaboration with IIT Delhi.

## **GATE Trainer,** 01/2018 – 09/2018

Gate Forum – Ahmedabad, Gujrat

• Trained students to qualify national level examination like GATE, IES.

## **Assistant Professor**, 07/2015 – 01/2018

## Parul University – Vadodara, Gujrat

- Developed multidisciplinary approaches to education, ensuring high-quality teaching, research and student experiences.
- Managed curriculum design and implementation, developing clear, concise learning methodologies through research and planning.
- Successfully established e-yantra Robotics lab in Collaboration with IIT Bombay
- As NPTEL MOOC coordinator in Parul university persuaded students to enroll for NPTEL Courses resulting in 500 % participation as compared to previous term

## SKILLS

- Technical writing
- Problem solving
- Attention to Detail
- Technical Analysis
- Product development
- CAD Software (Solid Works)

- Algorithm implementation
- Programming Languages (Python, Matlab, C++)
- Frameworks (TensorFlow, OpenCV, Keras)
- GIT, ROS 1/ROS 2, Docker
- Good Communication Skills

## **EDUCATION** -

Master of Science: Robotics, Control and Systems Engineering, 09/2021 – 05/2022

The University of Sheffield - Sheffield, UK - Distinction

Dissertation Project: Design and Development of AI Vision based Quality Inspection system to assist Induction and Installation of aviation fuel pipes for Airbus.

Master of Technology: Industrial Design, 07/2013 – 05/2015

Maulana Azad National Institute of Technology - India - Distinction

- All India Rank of 2841 amongst 160000+ candidates appeared to secure place in master's program with scholarship.
- Dissertation Project: Synthesis and Analysis of Mechanical and Tribological Behavior of LM24/B4C
  Particulate Composite for Engineering

**Bachelor of Engineering**: Mechanical Engineering, 08/2008 - 05/2012

Chhattisgarh Swami Vivekananda Technical University - India - Distinction

Project: To surrogate conventional HVAC system from Non-Conventional Geothermal cooling systems.

# PROJECTS

- Implemented AI (Convolutional Neural Network) Vision based system to identify Scratches in aviation fuel pipes using OpenCV in a University collaborative project with Airbus attaining TRL of 4
- AI based 2D pose estimation of aviation fuel pipes using Machine Learning and OpenCV
- Designed and Implemented Deep CNN networks for automated speech recognition, Yolo-v2 for object detection, reinforcement learning on cart-pole problem.
- Fault Diagnosis of a rotating machine by implementing Machine Learning (k-NN method) on data retrieved from a multi-sensor system.
- Created ROS Node for a Turtle Bot 3 robot to autonomously explore the robot arena containing obstacles using SLAM.
- Design and Fabrication of an autonomous robot for picking up object from one location to another location.
- Successfully implemented testing of control algorithm for obstacle avoidance & object following on the epuck2 robot
- Tuning the gains for a Proportional-Integral (PI) controller of a Power Plant such that a feedback control system satisfies a set of requirements using Genetic Algorithm
- Implemented Deep Learning Model on Flappy Bird Game.