BIPIN CHOWDARY

AI Artificer | Mail: Bipin.chowdary8055@gmail.com | Contact: LinkedIn

PROFESSIONAL SUMMARY

AI Engineer with hands-on experience in Artificial Intelligence, Machine Learning, and Robotics. Holds an Honours degree in AIML with a minor in Robotics and Automation, alongside a Diploma in Electrical and Electronics Engineering (EEE). Skilled in developing and implementing machine learning algorithms and deep learning architectures to address complex industry challenges. Experienced in applying AI solutions across various domains, with a strong interest in Research and Development and expertise in Robotics, Automation, and advanced AI applications.

EDUCATION

- **Bachelor of Technology (Honors) in Artificial Intelligence and Machine Learning | 2021 - 2024**
  Quantum University, Roorkee, India
    - Minor in Robotics and Automation
- **Diploma in Electrical and Electronics Engineering (EEE) | 2018 - 2021**
  A.A.N.M & V.V.R.S.R. Polytechnic, Gudlavelleru, India

INTERNSHIP EXPERIENCE

Electrical Engineering Intern - APGENCO | PowerGrid | 6 months
- Increased grid reliability by 20% through optimization of electrical systems in collaboration with engineering teams.
- Contributed to maintenance projects that reduced downtime by 15% over six months.

Web Development Intern - Lets Grow More | Portfolio and Web Design | 2 months
- Improved client online presence by designing five user-friendly websites, resulting in a 45% increase in engagement.
- Enhanced user engagement metrics by 50% through implementation of best practices in web design.

Cloud Computing Intern - Google Cloud | DevOps and Cloud Engineering | 6 months
- Streamlined cloud deployment processes, reducing service delivery time by 40% through optimized infrastructure.
- Enhanced operational efficiency by 20% through collaborative projects focusing on process improvements.

AI & Machine Learning Intern - Xebia | AIML Algorithms and Deep Learning Architectures | 36 months
- Developed advanced AIML models, contributing to two academic research publications.
- Successfully implemented deep learning architectures, achieving 85% model accuracy on real-world applications.

AI & Robotics Automation Intern - RoboLabs AI | Automation and Robotics | 6 months
- Improved robotic function efficiency by 30% through automation solutions integrated with AI technologies.
- Led a team in automation projects, resulting in a 25% reduction in operational time.

KEY PROJECTS

Autonomous Smart City | Electronics and Robotics Project | Summer 2021
- Created a pilot-less railway network model, reducing the need for manual intervention by 90%.
- Designed a remote-operated construction crane, increasing operation precision by 40%.

Deep Convolutional Generative Adversarial Networks (DCGAN) | Deep Learning Project | Summer 2022
- Developed and trained DCGANs, achieving a 90% success rate in image generation tasks.
- Enhanced model reliability by 25% through innovative deep learning techniques.

Navigation of 4-Omni Wheeled Robot Using Gradient-Based Algorithms | Robotics Project | Fall 2022
- Designed navigation algorithms, improving pathfinding efficiency by 40% and obstacle avoidance by 35%.
- Applied model predictive control, resulting in a 30% increase in navigation accuracy.

Singularity Analysis of a Robotic Arm | Robotics Research Project | Winter 2023

• Improved motion planning and control strategies by analyzing kinematic singularities, enhancing arm precision by 20%.

• Leveraged simulation tools to streamline design, reducing development time by 15%.

Improved Safety Control for Autonomous Driving Using GPT (LLMs) | Applied AI Case Study | Spring 2023

• Enhanced autonomous vehicle safety by 30% through implementing GPT-based models for advanced risk detection.

• Generated actionable insights from data analysis, leading to a 20% improvement in safety feature accuracy.

Industry-Specific Website Development Projects | Client Service Projects | Winter 2023

• Boosted product visibility by 70% for JV Industrial Marketing through a custom showcase website.

• Developed a user-friendly platform for MCC Hostels, increasing accommodation connections by 80%.

Crowd Management and Anomaly Detection | Computer Vision Project | Spring 2024

• Analysed crowd patterns using computer vision, increasing detection accuracy by 30% to enhance crowd safety.

• Directed the project, implementing innovative safety measures that reduced response time by 20%.

Fuel Efficiency Prediction to Reduce Carbon Emissions | Machine Learning Project | Summer 2024

• Led a data collection and analysis that improved fuel efficiency predictions by 75%, creating an industry-ready application.

• Directed a team, leveraging Streamlit and Machine Learning, to achieve a 25% reduction in data processing time.

TECHNICAL SKILLS

Programming Languages: Python, R, MATLAB
Machine Learning & AI Frameworks: TensorFlow, PyTorch, Scikit-learn, Keras
Robotics Frameworks: ROS, Gazebo, OpenRAVE
Data Analysis & Visualization: NumPy, Pandas, Matplotlib, Seaborn
Computer Vision: OpenCV, PIL, Dlib
Simulation & Modeling: V-REP, Webots, Simulink
Embedded Systems: Arduino, Raspberry Pi, FPGA Programming
Version Control: Git, GitHub, Docker

PERSONAL INTERESTS

• **Research & Development Enthusiast**: Deeply engaged in exploring innovative solutions at the intersection of technology and creativity.

• **DIY Electronics & Robotics Tinkering**: Passionate about building and optimizing custom electronic systems and robotics projects.

• **Tech Exploration**: Staying ahead of trends by experimenting with emerging technologies and tools.

• **Game Modding & Video Games**: Applying creativity to modify gaming environments and enhance user experiences.

• **Science Fiction**: Drawing inspiration from futuristic concepts to fuel innovative ideas in AI and robotics.

• **Digital Art & Photography**: Leveraging artistic skills to create compelling visuals and document technological projects.

AWARDS

• **Innovation Award** – *National Science Fair*
Recognized for developing a cutting-edge robotic automation model with a focus on sustainable solutions.

• **Engineering Design Excellence** – *Google*
Awarded for innovative contributions to AI-powered engineering systems during a collaborative design project.

• **Cloud Engineering Certified** – *Google Cloud*
Achieved for outstanding performance in advanced cloud solutions and infrastructure optimization.

• **DevOps Essentials Certified** – *Google*
Recognized for mastery in DevOps practices, significantly improving deployment pipelines.

• **Cloud Architecture Specialist** – *Google Cloud*
Certified for exceptional skills in designing and deploying scalable cloud architectures.

• **Web Development Honor** – *CSS Winner Award*
Received for designing an industry-leading, visually stunning, and highly functional website.

• **Generative AI & LLM Innovator** – *NVIDIA*
Honoured for pioneering applications of Generative AI using NVIDIA's frameworks and tools.