

Pukhrambam Akash Singh

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Highly motivated AI enthusiast with a proven track record of academic excellence and industry experience. Committed to continuous learning and driven by integrity and a growth-oriented mindset. Eager to contribute to cutting-edge research, significant projects, and dynamic teams with the goal of improving the world for all.

Experience

Process Engineer

Samsung Display Noida

Noida

2023 – 2024

- Maintained monthly defect rates below 2% through effective Quality Control, Defect Monitoring, and timely corrective actions.
- Remotely operated Vision Systems on the production line, improving efficiency by 15% and enhancing Key Performance Indicators (KPIs).
- Led the departmental AI Project Team, integrating AI solutions into production processes for improved automation.
- Conducted trial runs of new models, achieving Key Process Limits (KPL) and CpK targets, enhancing process quality.
- Managed production data (hourly, daily, monthly, yearly) using Spotfire to track and improve department performance.

Internships:

Power Grid Corporation of India Limited

Imphal

2022

NHPC Limited, Leimatak Power Station

2021

Projects

DeepSkip: Sponsored Segmentation in Youtube Videos

Ongoing

- Developing an edge device-deployable solution to **counter Google's server-side ad injection**.
- Tools used: Multimodal Parallelizable Transformer.

Twitter Sentiment analysis on Sentiment140 Dataset

2023

- Leveraged NLP techniques and Machine Learning Algorithms for classifying sentiments in large textual datasets.
- Tools used: PCA, SVM, Stochastic Gradient Descent, Logistic Regression, TF-IDF

Self Driving Car: Nvidia Paper Implementation

2021

- Developed a regression-based simplified model for autonomous driving.
- Tools used: CNN, L2 Regularization, Tensorflow, EDA, Python.

Scratch Implementations:

- **Back Propagation** in Deep Neural Network(DNN) with one hidden Layer.
- **PCA** and **LDA** for emotion classification.

Academic Qualifications

Indian Institute of Science Bengaluru

Master of Technology in Artificial Intelligence

2024 – 2026

NIT Manipur Bachelor of Technology in Electrical Engineering

Chairman's Gold Medalist

2019 – 2023

Hobbies and Interest

- Listening music ◦ Playing Volleyball ◦ Exploring new places ◦ Teaching ◦ Social service & giving back to society.

Achievements and Extracurricular Activities

1. Positions of Leadership

- **Contingent Leader, NIT Manipur Football Team (2022-2023):** Led the team at the All India Inter NIT Tournament hosted by NIT Rourkela.
- **Contingent Leader of JNV students (2016):** At the 23rd National Children's Science Congress.
- **National Cadet Corps (NCC) (2014-2017):** Held the position of Sergeant and cleared the A Certificate exam with A grade. Coordinator of cadet activities such as selection processes, drill activities, and training for the Parade.
- **Boys Scout (2011-2014):** I contributed 3-year service as a scout. Leadership and teamwork was groomed during this time.

2. Academic Achievements

- **Chairman's Gold Medal (2023):** Secured 1st rank of the batch.
- **ONGC Scholarship (2019-23):** Received a sum of Rs. 48,000 annually.
- **CSRL Super 30 scholar (2018):** 1-year free coaching for JEE Mains and JEE Advance
- Qualified for the **Indian National Mathematics Olympiad (2016):** after clearing the Pre-Regional Mathematics Olympiad (Pre-RMO) and the Regional Mathematics Olympiad (RMO).
- **Presented a paper** at the 7th National Conference on Recent Advances in Chemical and Environmental Sciences.



3. Voluntary & Community Activities

- **Volunteer, Entrepreneurship and Innovation IISc (EntIISc):** A forum promote the entrepreneurial ecosystem and startup culture in IISc.
- **Volunteer, Science for Rural India (SFRI):** Engaged in various community outreach initiatives at IISc.
- **Event Manager:** Coordinated blood donation program and Mini -Nite event during the OUGRI-2022 (the cultural fest of NIT Manipur).
- **Tutoring:** Tutored over 10 students up to 12th standard from 2021 to 2023.

4. Awards and Certifications

- **1st Position** in Article Writing Competition during Wildlife Week Celebration (2015), organized by the Forest Department, Government of Manipur.
- **1st Prize** in District Level Science Fair Quiz, by Rashtriya Madhyamik Shiksha Abhiyan, Bishnupur District, Manipur.
- **3rd Position** in State Level Slogan Writing Competition.
- **3rd Position** in Article Writing Competition on 62nd Wildlife Week (2017), by the Government of Manipur.
- **3rd Position** in 1st District Level Science Competition (2016), coordinated by The All Manipur Students Union (AMSU).
- **2nd Position** in Essay Competition during CATC-IV at Group Headquarters NCC, Imphal.
- **Mathematical Olympiad Training (2015)**, conducted at Manipur University.
- **Master class** on Embedded Systems Designs and IoT with hands-on project experience.

5. Publications

- Fabrication of Fast Response and Recovery NiFeAl₃+ Nanocomposite Gas Sensor for Detection of Dimethyl Methyl Phosphonate. Journal of Electronic Materials, May 2022 [10.1007/s11664-022-09700-w](https://doi.org/10.1007/s11664-022-09700-w) 
- Synthesis of a polyaniline (printable nanoink) gas sensor for the detection of ammonia gas. Journal of Materials Science: Materials in Electronics, December 2020. [10.1007/s10854-020-04760-2](https://doi.org/10.1007/s10854-020-04760-2) 
- Voltage and Frequency Control of SEIG(Self Excited Induction Generator) using GIC(Generalized Impedance Controller)

6. Strength & Soft Skills

- Embracing challenges
- Integrity
- Problem Solving
- Leadership
- Interpersonal Communication