

VISHU KALIER

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EXPERIENCE

National Remote Sensing Center, ISRO

(Sep, 2024 - Oct, 2024)

Deep Learning Engineer

Hyderabad, India (On-site)

Solar Energy Output Estimation and Quantification of Solar Panels in Urban Areas

- Implemented bound-box detection using OpenCV across 100+ variations in solar panel layouts.
- Overhauled panel detection from 10k+ satellite images using KerasCV, improving detection by 90%.
- Ensembled 4 YOLO variants combined using Transformer library and HED for better Image pipelining.

Omdena

(Mar, 2023 - Jun, 2024)

Chapter Lead

Berlin, Germany, (Remote)

Extreme 14-Day Weather Forecast

- Architected feature extraction and preprocessing on 1M+ data, leveraged by pandas and numpy.
- Streamlined dataset features from 150 to 44 variables by developing 20 data pipelines in Python.
- Developed 3 deep neural networks like LSTM, U-Net, and FNO, improving model accuracy by 80%.

PROJECTS

Recruit Sphere, A Team Management, Collaboration and Workflow System

- Built Node.js resume parser with Google Docs API and spaCy that assigns employees under 5 teams.
- Transformed team allocation logic by 15%, improved using hybrid Python and JavaScript framework.
- Accelerated chat workspace performance by 80%, by utilizing Continuous Integration/Deployment.
- Integrated automated report generation of 5 tasks incorporated by AWS Quicksight and Tableau.

Elite Base, A Hybrid Database Model for Flexible Data Management

- Condensed logic schemas by 4 Spring boot microservices following Observer, Proxy and Strategy Patterns.
- Enhanced distributed transaction management, with Redis and Apache Kafka, reducing conflict rates.
- Scaled system robustness by event-driven workflows and vectorized execution, via Apache Airflow.
- Designed 4 Spring Boot microservices elevate caching with SST, scheduling by Deque, and indexing by BIT.

SKILLS

- **Concepts:** Data Structures, Algorithms, Low-Level Design, Microservices, Java Full Stack, System Design
- **Frameworks:** Spring Boot, Java Spring, Java Collections, MySQL, Core Java, OpenCV, Tensorflow
- **Programming:** Java, SQL, JavaScript, Python, Node.js, Express.js, React.js, TypeScript, Rust, C++, Git

EXTRA-CURRICULAR ACHIEVEMENTS

- Led a team of 50 members as Head of Research in Blockchain Club, increased member participation by 40%.
- Ranked in the top 1% on Leetcode and achieved Expert on Codeforces by solving diverse 1800+ problems.

CO-CURRICULAR ACHIEVEMENTS

- Displayed strategic decision making and planning by winning 2+ district Chess tournaments in senior division.
- Spearheaded 4 Debates by delivering focused fact-driven arguments as an influential communicator.

EDUCATION

- **Integrated Masters (BTech + MTech) of Technology in Computer Science** (2021 - 2026)
and Engineering with Specialization in Artificial Intelligence and Machine Learning
Cumulative GPA - **9.21**, VIT Bhopal University, Bhopal, M.P.