

# BASUDEV DAS

AI/ML Engineer | Data & AI Fresher

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## PROFESSIONAL SUMMARY

B.Tech graduate in Computer Science Engineering with specialization in Artificial Intelligence & Machine Learning and a CGPA of 8.49/10. Hands-on experience in machine learning, data preprocessing, deep learning, NLP, Generative AI, RAG, and AI application development. Experienced in building end-to-end AI systems using Python, TensorFlow, scikit-learn, Pandas, FastAPI, LLMs, and MongoDB. Currently working as an AI/ML Intern at LabMentix, with experience processing 15,000+ records and training/evaluating 10+ machine learning models. Strong foundation in data analysis, predictive modeling, model evaluation, API development, software engineering, and problem solving.

## EDUCATION

Brainware University — B.Tech in Computer Science Engineering (AI & ML) | 2021-2025 | CGPA: 8.49/10

Army Public School Barrackpore — Class XII, PCM with Computer Science | CBSE | 2021 | 90.8%

Army Public School Barrackpore — Class X | CBSE | 2019 | 90.2%

## TECHNICAL SKILLS

Programming: Python, SQL, JavaScript, TypeScript, HTML5, CSS3

Data Science: Pandas, NumPy, Matplotlib, Seaborn, Data Cleaning, Data Preprocessing, Exploratory Data Analysis, Feature Engineering

Machine Learning: scikit-learn, Regression, Classification, Random Forest, Model Training, Model Evaluation, Feature Importance

Deep Learning: TensorFlow, CNN, Computer Vision, Transfer Learning, LSTM, RNN

AI / GenAI: NLP, Hugging Face, LLM Applications, RAG, Vector Search, Prompt Engineering, Multi-Agent Systems, AI Orchestration

Backend: FastAPI, Flask, REST APIs, Node.js, Express.js

Frontend: React.js, Next.js, Tailwind CSS

Databases: MongoDB, MongoDB Atlas, SQL

Tools & Platforms: Git, GitHub, Docker, Postman, Google Colab, Kaggle, OpenRouter, Vercel, Render

## EXPERIENCE

### AI/ML Intern — LabMentix

March 2026 – Present | Remote

- Worked on end-to-end machine learning workflows covering data preprocessing, feature engineering, model training, and evaluation.
- Managed and processed 15,000+ data records for machine-learning and analytical workflows.
- Cleaned and transformed datasets to improve data quality and prepare features for model development.
- Trained and evaluated 10+ machine learning models across project workflows.
- Applied Python-based data analysis and machine-learning techniques to practical datasets.
- Evaluated model performance and compared results to identify suitable approaches for predictive tasks.

### Artificial Intelligence Intern / Program — Rinex, in association with Cognizance, IIT Roorkee

July 2022 – September 2022

- Worked with fundamental artificial-intelligence and machine-learning concepts through practical project-based learning.
- Applied Python-based approaches to data preprocessing, model development, and evaluation.

- Developed understanding of AI model implementation for real-world application scenarios.
- Practiced analytical problem solving and application of machine-learning concepts to project datasets.

## SELECTED PROJECTS

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### CareerForge AI — AI-Powered Resume & ATS Intelligence Platform

Python | FastAPI | React | TypeScript | LLMs | ATS | AI Orchestration | Typst

- Architected an AI-powered career platform for structured candidate-data management, resume generation, ATS analysis, and job-specific optimization.
- Developed a professional knowledge engine for organizing education, certifications, achievements, projects, skills, and experience as reusable candidate data.
- Built an AI orchestration layer supporting LLM providers, prompt management, job intelligence, and resume-generation workflows.
- Implemented a canonical structured resume representation and validation pipeline to maintain consistency and prevent unsupported resume information.
- Developed ATS intelligence capabilities for job-description analysis, keyword matching, resume scoring, and optimization recommendations.
- Built production-oriented Typst resume templates for consistent, ATS-friendly PDF generation.
- Implemented desktop application update infrastructure including version checking, downloads, installation, backups, and release management.
- Achieved 224/224 automated tests passing during public-alpha release hardening.

### Multi-Agent AI Customer Support Assistant

Python | FastAPI | Next.js | TypeScript | MongoDB Atlas | RAG | LLMs | JWT

- Designed a modular AI customer-support platform combining LLM-based assistance, knowledge retrieval, and multi-agent orchestration.
- Developed a FastAPI backend with modular REST APIs, authentication, database lifecycle management, and automated testing.
- Implemented MongoDB Atlas integration for user and application data.
- Developed authentication workflows using JWT-based authorization.
- Built the frontend using Next.js, TypeScript, and Tailwind CSS.
- Designed the knowledge-base architecture for document ingestion, vector retrieval, and Retrieval-Augmented Generation (RAG).
- Designed the system for configurable LLM providers through OpenRouter.
- Applied Git-based branching, testing, debugging, and iterative software-engineering workflows.

### Oral Cancer Detection System

Python | TensorFlow | CNN | Pandas | Matplotlib | Deep Learning

- Designed and implemented a CNN-based image classification system for oral cancer detection.
- Preprocessed and analyzed medical image datasets using Python and Pandas.
- Trained and evaluated deep-learning models for image classification.
- Visualized training and validation accuracy and loss using Matplotlib.
- Applied iterative evaluation and optimization to improve model performance.

## CERTIFICATIONS

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- Python Using AI — AI for Techies | 2025
- Artificial Intelligence Program — Rinex, in association with Cognizance IIT Roorkee | 2022
- Mobile App Development Internship — WebGuru Infosystems | Android Development using Java

## ADDITIONAL INFORMATION

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Languages: English, Hindi, Bengali

Areas of Interest: Artificial Intelligence, Machine Learning, Data Science, Generative AI, Software Development