SUBRAT KUMAR SAHOO

AI & ML ENGINEER | DATA SCIENCE | PYTHON | FULL-STACK DEVELOPER

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OBJECTIVE

Computer Science undergraduate with strong foundations in Artificial Intelligence, Machine Learning, Data Science, Python, and Full-Stack Development. Multi-internship experience across Data Science and AI roles, building AI-powered applications, predictive models, and intelligent web solutions. Seeking a full-time / internship opportunity to apply technical skills and contribute to innovative AI products.

EXPERIENCE

Data Science Intern | Thiranex *June 2026 – July 2026*

- Worked on real-world Data Science projects involving data preprocessing and cleaning using Python (Pandas, NumPy)
- Performed Exploratory Data Analysis (EDA) and Data Visualization to derive actionable insights
- Applied Machine Learning fundamentals for model building and evaluation
- Collaborated with the team using Git & GitHub for version control

AI Intern | XTRAGRAD Pvt. Ltd. *July 2026 – August 2026*

- Contributed to AI workflow design and prompt engineering for applied AI use cases
- Built and tested AI agent-based solutions using modern AI/LLM tooling
- Assisted in integrating AI APIs into functional prototypes and internal tools
- Documented workflows and collaborated cross-functionally on AI feature delivery

Data Science Intern | IncodeVision *July 2026 – August 2026*

- Worked on data cleaning, feature engineering, and exploratory analysis of real datasets
- Built and evaluated Machine Learning models for classification and prediction tasks
- Created visualizations and dashboards to communicate findings to stakeholders
- Followed Agile practices and version-controlled workflows using Git & GitHub

PROJECTS

CyberGuard: AI-Powered Threat Detection, Investigation & Response Platform

August 2026 – October 2026 | Team VisionCraft | Role: Team Lead & AI/ML Lead

Tech: *Python, FastAPI, Scikit-learn, LightGBM, PyTorch, PostgreSQL, React, React Native, Pydantic*

Live Demo Video: youtube.com/watch?v=4rsPaYPXP2M | GitHub: github.com/teamvisioncraft875-netizen/CyberGuard | LinkedIn: lnkd.in/p/dwxKz3Rm

- Architected an AI-native cybersecurity platform unifying threat detection, investigation, and SOAR response across individual users (Guard App) and enterprise security operations.
- Led the AI/ML layer, developing and benchmarking detection engines: Phishing (calibrated LinearSVC), Malicious URL (HistGradientBoosting), Malware PE (LightGBM), and EDR anomaly (Random Forest).
- Achieved benchmark results on held-out datasets: 99.59% phishing accuracy, 97.10% malware detection rate, 98.41% EDR threat recall on unseen host, and 99.65% incident correlation recall (CTU-13).
- Enforced host-disjoint splits, strict no-synthetic-data policy, SHA-256 model registry verification, and safety guardrails requiring human analyst approval for destructive actions.
- Exposed all engines via a FastAPI microservice with automated pytest validation, integrated with PostgreSQL RLS and RBAC.

ExamSentinelX AI – Online Exam Abnormal Activity Detection System

Tech: *Python, OpenCV, Machine Learning, Computer Vision, Flask*

Live: examsentinelx-ai.onrender.com | GitHub: github.com/ssubratkumar106-blip/ExamSentinelX-AI

- AI-powered proctoring system that detects abnormal activity during online exams in real time (face absence, multiple faces, gaze/head movement, and suspicious behavior)
- Implemented real-time face and motion detection pipeline using OpenCV and Haar Cascade / ML-based classifiers
- Designed an alert and logging system to flag suspicious activity for exam evaluators

Mega Data Science Project – Apple Stock Price Analysis and Prediction

May 2026 – Jul 2026 | Associated with Thiranex

Tech: *Python, Pandas, NumPy, Matplotlib, Scikit-learn, Linear Regression*

GitHub: github.com/ssubratkumar106-blip/Mega_DataScience_Project

- Performed Exploratory Data Analysis (EDA) and Machine Learning on Apple's historical stock market data to understand price trends
- Visualized important stock price patterns and built a simple Linear Regression model to predict future prices
- Demonstrated the complete Data Science workflow from data preprocessing to prediction

LearnVaultX – AI Powered Learning Platform (GitHub Repo)

Tech: *Python, AI/ML, Flask*

Live: LearnVaultX.in | GitHub: github.com/teamvisioncraft875-netizen/LearnVaultX

- AI-based adaptive learning platform with personalized study roadmap and AI Quiz Generator
- Built Student Performance Analytics and a Smart Dashboard for progress tracking

GramSathi AI (Ongoing)

Tech: *AI Agents, Agent.ai, Multi-Agent Workflow*

- Multi-agent AI assistant for rural India: Government Scheme Assistant, Agriculture Assistant, and Health Guidance
- Added voice-based AI interaction and local language support for accessibility

Face Recognition System

Tech: *Python, OpenCV, Haar Cascade*

- Built a face detection and recognition model with an attendance-ready architecture

Daily Task Tracker

Tech: *HTML, CSS, JavaScript, Flask*

- Productivity web app for adding, deleting, and tracking daily tasks with backend integration

Mood Based Quote Generator

Tech: *HTML, CSS, JavaScript, Flask*

- Generates motivational quotes based on user mood via a simple API-style backend

SKILLS

Programming Languages: Python, Java, C, JavaScript
Data Science: NumPy, Pandas, Matplotlib, Seaborn, Data Cleaning, EDA, Data Visualization, Feature Engineering
Machine Learning: Regression, Classification, Model Evaluation, Scikit-learn, ML Fundamentals
AI & Generative AI: Prompt Engineering, AI Agents, OpenAI APIs, Agent.ai, AI Workflow Design, LLM Integration
Computer Vision: OpenCV, Haar Cascade, Real-Time Face & Motion Detection
Web Technologies: HTML5, CSS3, JavaScript, Flask
Tools & Platforms: Git, GitHub, VS Code, Jupyter Notebook, Google Colab, Microsoft Office
Soft Skills: Communication, Teamwork, Problem Solving, Continuous Learning, Team Collaboration

EDUCATION

B.Tech in Computer Science & Engineering
KMBB College of Engineering and Technology

CERTIFICATIONS

- Google — 5-Day AI Agents: Intensive Vibe Coding Course
- BCG Data Science Job Simulation (Forage)
- AWS Educate Machine Learning Foundations
- AWS Introduction to Generative AI
- Python & Java (HackerRank)
- IBM Frontend Development
- IBM — Frontend Development, Git & GitHub, Microsoft Office
- Simplilearn Google Workshop

ACHIEVEMENTS

- CGPA: 8.95/10 (up to 4th Semester)
- Completed 19+ professional certifications
- Selected for AICTE Internship Program 2026 (Foundation Track)
- Completed Data Science, AI, and Data Science internships at Thiranex, XTRAGRAD Pvt. Ltd., and IncodeVision
- Built multiple AI, ML & full-stack web development projects
- Active learner in AI Agents, Data Science & Full-Stack Development

LANGUAGES

English, Hindi, Odia