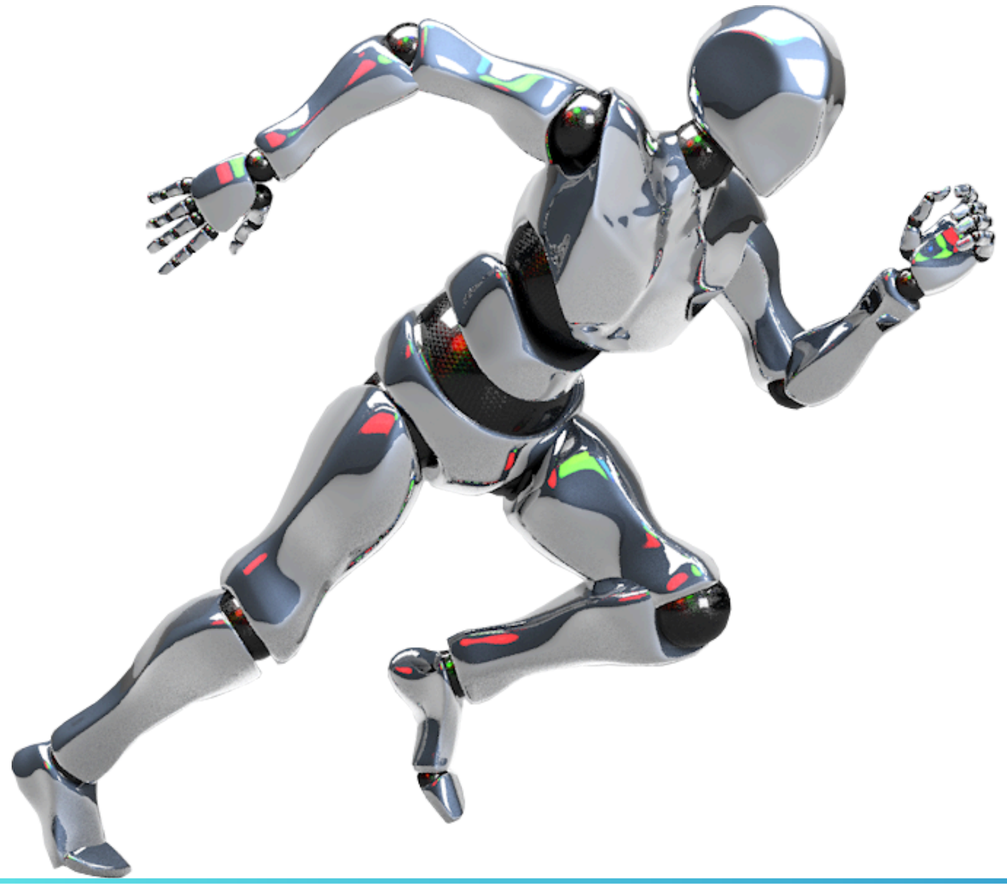
THIRDEYE



Top Project References

A list of high-impact projects delivered by ThirdEye Data across enterprises and industries.

Version: May 2026

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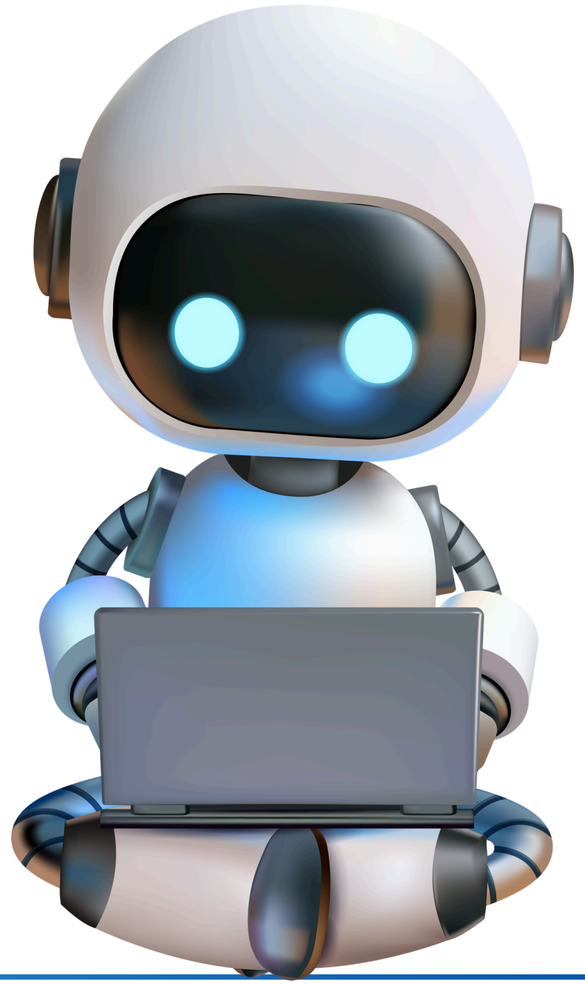


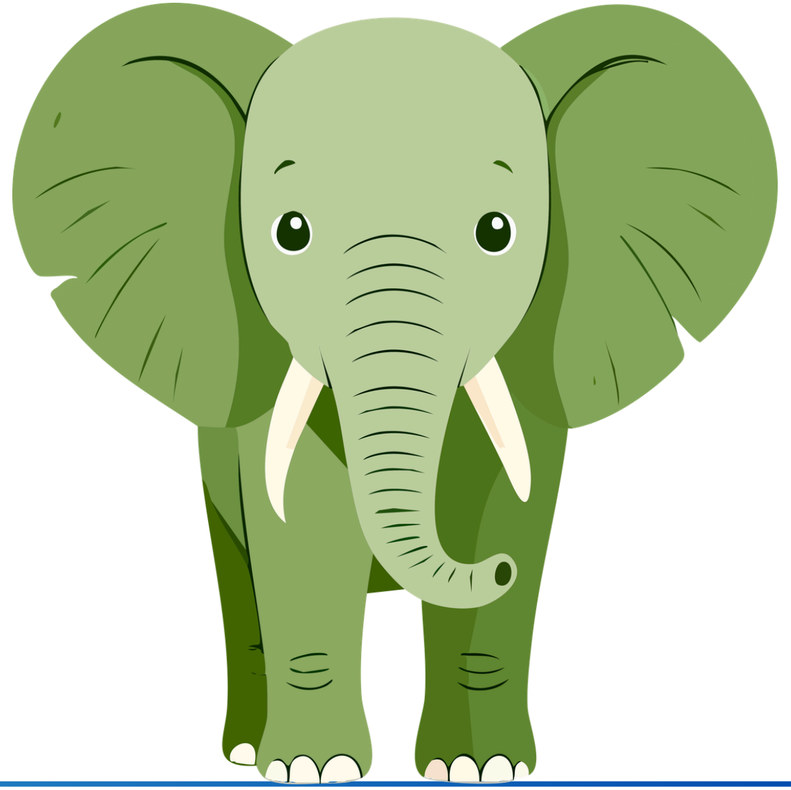
Who We Are

ThirdEye Data is a data and AI services company that helps enterprises make better decisions and operate more efficiently through intelligent systems.

We work as trusted AI development partners, listening closely to our customers, understanding their business context, and taking full ownership of outcomes.

Why Organizations Work With Us

- **Big ears, good listeners:** We take a business-first, consultative approach by listening carefully, asking the right questions, and aligning solutions to real objectives.
- **Nimble and responsive:** As a focused, agile organization, we move quickly, adapt faster, and execute without unnecessary overhead.
- **Delivery ownership:** We take full accountability for outcomes with clearly defined scope, expectations, and measurable business results.



Who We Are

THIRDEYE

100+ Years
of combined experiences

15+ Years
In Operations

50+ Customers
Across the Globe

75+ Projects
End-to-End Data & AI Projects

Experience That Matters

15+ years of hands-on experience across:

- Artificial Intelligence & Machine Learning
- Agentic AI & AI Agents
- Computer Vision
- LLMs & Generative AI
- Big Data & Modern Data Platforms
- Data & AI Governance

Valuable Customers

THIRDEYE

Customers from USA

Valuable Customers

THIRDEYE

Customers from USA

Valuable Customers

Customers from India

Valuable Customers

Customers from the Rest of the World

Agentic AI, GenAI, LLM & NLP Projects

THIRDEYE

- AI Agents for Customer Loyalty
- OpenAI-based Generative AI Applications
- AIDW Assistant
- IP Search
- Billings Assistant
- Onboarding Buddy - *Copilot*
- *Warehouse – Supplier Copilot*
- Generative AI for HR
- Decentralized Identity Management
- Help Center Assistant
- Research Docs Search
- Publication Disambiguation
- Travel Planning Assistant
- Project Management Docs Analysis
- Financial Documents Analysis
- Customer Complaint Categorization
- Semantic Search Over Legal Docs
- Knowledge Management System
- Email Categorization and Action Item Extraction

AI Agents for Customer Loyalty

ThirdEye Data is enabling a Gen AI based Conversational Framework and Agentic AI based Automation platform with:

- Client-facing and internal-facing agents
- Customer-facing bots that are semi-scripted, LLM supported, and enable personalized recommendations
- Agents to embed and provide guidance in the form of conversation, data, insight, and dynamic interactive graphs
- Broader-based workflow automation/coordination to bring together a multitude of agents.

Azure Open AI Applications

THIRDEYE

ThirdEye has deployed a team with both local and offshore developers at Microsoft's headquarters in Redmond, WA who are developing real-world applications leveraging OpenAI in various domains.

- Azure OpenAI Chatbot for Enterprise Data using RAG,
- Semantic Kernel, and LangChain
- Enterprise Chatbot with Microsoft Fabric AI Skill and Azure AI Foundry
- Social Media Campaign Generation - using Dall-E-3, GPT-4V, and GPT-4 Turbo
- Predicting Customer Churn and Generating Email Campaign using using Microsoft Fabric, Azure Machine Learning, Azure OpenAI GPT - 4 Turbo, Azure AI Foundry
- Contact Center Assistant – using Microsoft Fabric, Azure Speech Service, Azure OpenAI GPT - 4 Turbo, Azure AI Foundry
- Vector Search & AI Assistant with AOAI, Azure Cosmos DB and Azure Cognitive Search
- Microsoft Fabric with LLM Prompt Flow in Azure ML
- Chatbot Assistant - with Azure Databricks AI
- Microsoft Intelligent Data Platform + Snowflake

AIDW Assistant

THIRDEYE

- Developed and implemented a Chatbot application that serves as an AI-powered knowledge repository, leveraging existing sales and project documents as the primary data source.
- Integrated functionality to auto-tag metadata and support bulk search capabilities across all indexed content, ensuring efficient and comprehensive data retrieval.
- Established a near real-time connection to the Dataverse, enabling immediate indexing of newly published documents in the application’s knowledge repository.

IP Search

THIRDEYE

- Utilized Azure AI Search for indexing and querying content, providing powerful search capabilities with features like full-text search, filtering, and scoring.
- Incorporated OpenAI for generating embeddings and enhancing search capabilities, resulting in more relevant and context-aware search results.
- Enabled advanced natural language processing and semantic search features.
- Used serverless Azure functions as the backend API, allowing for scalable and efficient processing without the need for managing server infrastructure.
- Hosted as an Azure Static Web App, providing a globally distributed static content hosting.

Billings Assistant

THIRDEYE

- Deployed LLM Chatbots With the Data Intelligence Platform with DBRXModel (Arch)
- Prepared clean documents to build an internal knowledge base and customize the chatbot
- Leveraged Databricks Vector Search with Microsoft's Foundation Model endpoint to create and store document embeddings
- Searched similar documents from the knowledge database with Databricks Vector Search
- Deployed a real-time model using RAG and providing augmentedcontext in the prompt
- Leveraged the DBRX instruct model through the Databricks FoundationModel endpoint (fully managed)

Onboarding Buddy Chatbot

Developed an innovative Copilot-based Onboarding Buddy chatbot

- This Chatbot was part of a complete HR application that was developed on the Power Platform
- Delivered the HR application along with the chatbot as a complete solution to potential customers worldwide.

Supported HR managers in their onboarding efforts for new recruits.

The Chatbot helped new recruits through the complete onboarding process by:

- Suggesting the possible next steps, based on their current standing
- Explaining company policies and processes as documented
- Answering all HR related questions that they may have
- Recommending training sessions

Warehouse – Supplier Copilot

THIRDEYE

Developed an innovative Copilot-based **Supplier chatbot**

- This Chatbot was part of a complete Warehouse Management application that was developed on the Power Platform
- Delivered the Warehouse Management application along with the chatbot as a complete solution to potential customers worldwide.

The Supplier Copilot helped suppliers worldwide to:

- Upload invoices for payment processing
- Ask specific questions about the status of their invoices
- Ask product-related questions

Was knowledgeable about the data persisted in the Dataverse and responded contextually to all questions asked

Responses adhered to role-based data privacy and security policies

Generative AI for HR

THIRDEYE

- Developed a GenAI-based chatbot integrated with software that handles HR, ITSM, Automation, Conferencing, Monitoring, etc.
- The chatbot will aid users in triggering various processes or functions handled by this software without logging into these systems.
- The bot aims to improve workplacemanagement and workforce management using Generative AI. Built on Azure OpenAI and leveraging Cognitive AI services, this will be a SaaS-based product that can also be independently deployed in a client cloud subscription.

GenAI based Decentralized Identity Mgmt.

THIRDEYE

Developed a Decentralized Identity Management platform that involves:

- Gathering social media data from Facebook, Instagram, and Twitter/X.
- Performing data processing, cleansing, and parsing of all data for subsequent storage in a unified database
- Providing the ability to the end user to leverage GenAI and query across their personal data
- Generate custom tweets based on historical data

Help Center Assistant

THIRDEYE

Developed a GenAI-based chatbot that provides a seamless and intuitive chat interface for users to interact with the system.

- The chatbot ensures that all relevant data from PDFs and the customer’s website is readily available for search and retrieval.
- Collects and utilizes user feedback to continuously improve the quality and relevance of the responses.
- Automatically updates the index when content on the customer website changes, ensuring the most up-to-date information is available
- Implement RAG to enhance the accuracy and relevance of search results by combining retrieval with generative AI.

Research Docs Search

THIRDEYE

- The goal of this project was to implement an AI model to enable a literature survey through question-answering (Q&A) and summarization functionalities on a corpus of 5 million+ research documents. The documents were a mix of PDF docs, images, charts, and graphs.

- The solution leveraged a Retrieval Augmented Generation (RAG) based framework to provide precise answers with citations from the data corpus.

- The Chatbot had full conversational abilities with multiple levels of querying

- The technical architecture had open-source LLMs running on the Azure cloud and consuming various open-source and Azure cloud tools and services.

Publication Disambiguation

THIRDEYE

Developed a solution that:

- Associates a new publication with the right scholar
- Ensures that the publications in their existing data stores are all associated with the right scholars.
- Erases all ambiguities in their existing data stores about publications and their respective authors.

Developed a Feed Forward Neural Network model that finds similarity between two authors along with a publication.

Performed due diligence on their entire data landscape and proposed data architectural changes that will accommodate the future NLP-related requirements.

Travel Planning Assistant

Deployed a GenAI-based solution that addresses the travel needs of busy professionals who crave a well-planned travel itinerary without having to spend too much time planning for it, while ensuring that it's within their budget and as per their personal preferences.

Implemented the following:

- Destination images for each destination and activity.
- Automated booking features, including ticket optimization, Viator booking flow, and Stripe integration.
- Established email integration for user communication and added ancillary sections for pre-planned trips.
- Hotel and flight booking features, determining the extent of end-to-end functionality versus affiliate integration.

Project Management Docs Analysis

THIRDEYE

Deployed a GenAI-based solution that addresses the travel needs of busy professionals who crave a well-planned travel itinerary without having to spend too much time planning for it, while ensuring that it's within their budget and as per their personal preferences.

Implemented the following:

- Destination images for each destination and activity.
- Automated booking features, including ticket optimization, Viator booking flow, and Stripe integration.
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- Hotel and flight booking features, determining the extent of end-to-end functionality versus affiliate integration.

Financial Documents Analysis

THIRDEYE

- Leveraged ThirdEye Data's GenAI-based product named Optira for ingesting financial documents like bank statements and invoices for further downstream consumption.
- Enabled a ChatGPT-like interface for financial personnel to query on the ingested documents in simple English.
- The responses involved summarization, aggregation, and mathematical functions, intermingled with reasoning-based snippets.
- Strict data privacy and security policies were enforced to ensure that no PI information could leak out.
- Served a foundational role and basis for the company's path for digitizing its operations

Customer Complaints Categorization

THIRDEYE

- The customer gathers a large volume of unstructured documentation as their homeowners lodge complaints and/or service requests. They wanted to proactively identify trends within this data, using an NLP system to extract and organize knowledge.
- Developed a Customer Complaints Categorization using NLP Technologies that would classify any given text into various customer-specific categories. Human agents would then process them.
- Launched BERT and Roberta-based models for Customer Complaint Categorization on HuggingFace, as listed here.

Semantic Search Over Legal Docs

THIRDEYE

- Enhanced the existing keyword-based content search engine on the HUDOC site to an AI & NLP-based Semantic Search engine.
- Leveraging NLP algorithms, performed Topic Modeling on legal documents hosted on the Azure cloud.
- Associated provided concepts with NLP-identified terms.
- Performed Summarization, Custom Entity Extraction, Key Phrases Extraction, Title Generation on a per-document basis.
- Enabled User Feedback loop with rating mechanism and Add/Delete functionality of Concepts.

Knowledge Management System

THIRDEYE

- Developed an AI-based knowledge management system that enabled its users to identify relevant Subject Matter Experts (SME) on various topics by asking simple questions and getting detailed responses with a listing of ranked SMEs.
- Users asked English language queries seeking for SMEs on various topicswhile interacting with a Chatbot.
- Pre-processed unstructured data from articles, blogs & publications toextract relevant entities like project topics, domains, people, organization,location, date & time.
- Developed deep JSON profiles for every employee with associations torelevant project topics, domains, location, date & time.

Email Categorization and Action Item Extraction

THIRDEYE

- We deployed an AI POD team that addresses the customer’s business needs to develop an Automated Action Item Extraction and Email Categorization System.
- The solution involves developing a robust text classification model to categorize emails into predefined categories based on their content.
- Implement a sophisticated Named Entity Recognition (NER) model for identifying and extracting actionable tasks from incoming emails.
- Develop a standalone and user-friendly UI to empower network operators and technicians to assess and visualize the outcome of the algorithm easily.
- Integrating the automated system with the customer’s existing email platform, making it a seamless experience for both the training and prediction phases.

AI/ML/DL Projects

THIRDEYE

- Battery Remaining Life Predictions
- DL-based File Conversions
- MLOps Platform
- Inventory Optimization System
- AI-based Cyber Security Platform
- Connected Retail Solution
- Crime Analytics & Predictions
- Predictive Maintenance Solution
- Campaign Conversion Platform
- Marketing Analytics Platform
- Predictive Analytics Solution
- Predictive Maintenance & Component Failure Analysis
- Plywood Quality Check System
- Optimal Frequency Selection In Unlicensed Spectrum
- Predictive Metrology for Control System
- Real Time Network Diagnostics
- AI Ops Platform

Battery Remaining Life Predictions

Battery life is defined by the number of cycles of charge and discharge. Current testing mechanisms for battery's remaining life is timeand cost-prohibitive.

ThirdEye Data built a Machine Learning Regression Model based on early life cycle test data.

The model predicted the remaining life in terms of the number of cycles.

- Performed Feature processing, including feature selection and feature engineering
- Training and testing regression models. Multiple model types were tried.
- A reinforcement learning-based system was used to guide the testing process
- Took an Active Learning approach to judiciously decide on the batteries further.

DL-based File Conversions

THIRDEYE

- Developed a DL-based File Conversion System that leverages Deep Learning techniques to identify, map &transform various types of data columns.
- When tabular data arrives from various sources, this system identifies the columns in the source files and maps them to predefined columns.
- For some columns, transformation of the column data was made to conform to the desired format.

MLOps Engineering

THIRDEYE

Over the years, the customer has accumulated hundreds of ML models for various levels and types of predictions, object detections, tags identification.

It is developing an exhaustive MLOps platform for streamlining all activities for data scientists, data engineers, and business stakeholders.

- Data LakeHouse - Design, Architect, Creation
- Data Pipelines - Ingestion, Cleansing, Transformations, Correlations
- ML Flow - Model Development, Training, Deployment, Versioning

Inventory Optimization System

THIRDEYE

- Set up a data lake that ingests 200+ data sources with varied data source types and formats.
- Set up data pipelines that ingest data on a batch, real-time, and incremental basis.
- Developed ML models to deliver inventory optimization strategies that will inherently help the company's bottom line.
- Developed a Predictive Maintenance to be used by the Manufacturing Division
- Developed a Sales Forecasting system that the sales and marketing team would be using.

AI-based Cyber Security Platform

THIRDEYE

Architected, designed & implemented the next-generation cybersecurity platform, which tracks network data to analyze real-time threats.

The System as developed:

- Performs real-time analytics using Artificial Intelligence technologies on petabytes of network data to continuously predict the next cyber threat.
- Provides a persona-based 360-degree view of the security aspects of the overall network.
- Delivers a Deep Learning-based analytical and Cognitive engine.

Connected Retail Solution

THIRDEYE

- Developed an end-to-end analytical & predictive solution that enhances Customer Experience using Omni-Channel presence based on Microsoft Azure services.
- The solution connects the in-store and online experiences of the customers and highlights the difference between a Connected Consumer and a Traditional Shopper.
- Provides dynamic recommendations and a 360-degree cyclic data exchange.
- Zero-touch purchasing experiences with secure transaction authorization using Face Recognition.

Crime Analytics & Predictions

THIRDEYE

Developed the system to analyze & detect crime hotspots & predict crime using the following open data sets:

- Open Crime Data
- Census Data
- Social Media Data (Facebook & Twitter)
- Traffic Data (real-time & historical)
- Weather data (real-time & historical)
- Leveraged various Azure services for backend processing & visualizations in PowerBI.

Predictive Maintenance Platform

THIRDEYE

- Extended the customer’s existing Predictive Analytics Platform to predict in real time using 10x additional data points.
- Ingested 10x additional sensor data points into the system.
- Increased rate of data ingestion by more than 50%.
- Achieved near real-time data analytics capability.
- Improved analytical queries’ response time by more than 900%.

Campaign Conversion Platform

THIRDEYE

- Developed end-to-end Campaign Conversion Platform that optimizes campaigns for converting users to paid subscription plans using MachineLearning techniques.
- Developed hyper-targeted campaigns for individual users based on their profile that has been curated over time.
- Improvised ML models by incorporating a complete feedback loop.

Marketing Analytics Platform

THIRDEYE

- Developed a world-class Big Data analytical product, Navik Converter that helps enterprises run successful marketing campaigns for specific business goals.
- One of the first products to be built on the Google Cloud Platform, the product leveraged state-of-the-art Big Data technologies.
- The Analytics algorithms were developed as MapReduce programs dovetailed together to enable business users to make business decisions with insights and decision metrics.

Predictive Analytics Solution

THIRDEYE

Developed Amazon AWS's first solution on the AWS Marketplace.

The solution showcased:

- Integration with multiple services (both native and third-party ones) as available on the AWS marketplace.
- Used machine learning models for predictive analysis.
- Created analytical and predictive dashboards for visualizations.
- Developed a mobile app to get notifications based on predictive analysis.
- Customers deployed the solution with a single click and had it up and running within minutes.

Predictive Maintenance & Component Failure Analysis

THIRDEYE

Built predictive algorithms that will tell the average time that would be required to repair any faulty component.

The following AI models have been developed:

- Detect the rogue component out of all the given components.
- Help to identify the number of hours that any component would be able to run without failure, and according to which the customer can schedule the maintenance proactively.
- Help to know the probable maximum number of times a component can be repaired. After this threshold, the component would have to be replaced.

Plywood Quality Check System

ThirdEye has built a technical solution to detect internal defects in plywood after they roll off the production floor and before they are shipped to customer locations.

- The solution involves implementing a deep-learning solution to detect defects inplywood by analyzing the sound of hitting plywood with a hammer.
- The dataset is being created by collecting recordings of the sound of hitting plywoodwith a hammer.
- The audio files have been processed, noise has been removed, and analyzed to detect the sound of good or bad quality plywood.
- The whole system has been deployed in the production floors of all manufacturing locations across the country.

Optimal Frequency Selection In Unlicensed Spectrum

ThirdEye built a technical solution that addresses a telco company's challenges in ensuring interference-free frequencies and high-quality service for its customers in the unlicensed band.

- The solution involves implementing ML/DL models for predicting interference-free spots in the UBR.
- Various ML and DL models are deployed predicting the likelihood of interference on different frequency bands and then making informed decisions on which frequencies to use for optimal performance.
- Develop a standalone and user-friendly UI to empower network operators and technicians to assess and visualize the outcome of the algorithm easily.
- Implement a system that will completely automate the frequency change process and integrate it with the company's Network Management System.

Predictive Metrology for Control Systems

THIRDEYE

- Developed an Open-Loop-System that aids operational personnel to control the glass coating process, improves the product quality, and reduces waste.
- The Open-Loop-System receives live data, computes the predicted end-of-line metrology values and corrective action suggestions for the process parameters in real-time, while panes are being coated.
- The predicted metrology values and parameter suggestions were made available in real-time on the shop floor in the form of a graphical user interface, with which the operational personnel interact.

Real Time Network Diagnostics

THIRDEYE

- Developed a predictive model for predicting problems for a feature in NSN’s Network infrastructure, given the relevant counter values.
- Proved that the Machine Learning-based solution can significantly alleviate the current issues with manual log analysis & save millions of dollars.

AI Ops Platform

THIRDEYE

Built an AI Ops anomaly detection platform to detect/predict anomalies in various server-side metrics like CPU, memory usage, traffic in / out, etc.

Completely open-source based, and runs on Spark Clusters.

The platform has the following capabilities:

- Can detect anomalies on more than 10,000 metrics in the given datasets
- In-built Auto-AI functionality
- On detection, raise alerts in dashboards and send notifications.
- Ability to drill down to identify root causes

Computer Vision Project References

THIRDEYE

- Image Quality Detection Platform
- AI-generated House Floor Plans
- Plywood Quality Check System
- Anomaly Detection in Electric Poles
- Pill Detection from Images
- Product Counting Solution for Electronic Connector Manufacturer
- Automated Data Extraction from Floor Plans and Converting into DXF Files
- AI For Satellite Image Recognition
- AI-Driven HSE Non-Compliance Detection
- Defects Detection System for Paper Mill
- Automated Inventory Counting System
- Foreign Object Detection in Food Production
- AI-Powered Furniture Detection & Spatial Estimation

Image Quality Detection Platform

THIRDEYE

Built an end-to-end platform that picks up third-party-provided images of electric poles to detect the quality of the image for further downstream consumption.

Various AI models are applied to detect various aspects:

- Structure Detection
- Tags Deciphering
- Occlusion
- Blurriness
- Angle detection

Once the quality of the images is determined to be adequate, channel these images for anomaly detection and other downstream analytics.

Image Quality Detection Platform

THIRDEYE

Added functionality to detect & decipher tags on these electric poles

Various AI models were developed to recognize the backgrounds of the tagsand then decipher vertically written alphanumeric characters.

Developed a master pipeline that:

- processes all images
- branches to appropriate data pipelines based on the types of objects detected in the image
- invokes appropriate AI models on the image
- persists all outcomes into appropriate folders for validations by humans.

AI-generated House Floor Plans

THIRDEYE

Developed an end-to-end data system for automating the process of floorplan generation using AI.

The system accomplished the following:

- Recommend - based on the user's preferences, the system recommended appropriate floor plans
- Customize - users could customize the floor plans according to their wishes
- Generate - based on all user inputs, the system generated floor plans.
- Leveraged Deep Learning techniques for floor plan generation.

Anomaly Detection in Electric Poles

THIRDEYE

Electric poles carrying electricity for Energy Utility companies often develop snags that restrict the flow of electricity and cause wildfires, resulting in losses for both the company and consumers.

Developed a solution that would:

- Identify various images in a picture, including electric poles
- Detect anomalies in these electric poles and their sub-parts
- Predict the probability of defective electric poles to further deterioration
- Images captured from drones flying over the electric poles were ingested intoAzure blob for anomaly detection.

The solution was used by Microsoft’s customers, partners and field salespersonnel worldwide.

Pill Detection from Images

THIRDEYE

- Developed end-to-end data pipelines for operationalizing AI Solutions.
- Leveraged ML to deliver maximum value to patients, ensuring that medications are given to the right patient, at the right time & at the right dose.
- Used Deep Learning techniques to accomplish the image recognition of medical pills through a Smart App.
- Used Sentiment Analysis for capturing patients' experience, both online and using connected devices.
- Ingested real-time and batch data into a HIPAA-compliant data lake.
- Analyzed all data using D3.js-based analytical dashboards.

Product Counting Solution for Electronic Connector Manufacturer

THIRDEYE

- Developed an AI-powered solution that leverages advanced computer vision technologies to count various products, such as wires that the customer manufactures. The solution enables users to take pictures of the product (for ex, a bunch of wires) from their Android-based mobile app that would then be analyzed to generate the count of the product bundle.
- By utilizing AI to recognize and count items, the risk of human error is virtually eliminated, ensuring precise counts every time.
- Developed a basic, yet functional, AI-powered mobile-first product counting application designed to demonstrate the efficacy of computer vision technologies for counting of manufacturing components.

Automated Data Extraction from Floor Plans and Converting into DXF Files

THIRDEYE

- Built a deep learning pipeline combining with YOLOv8 to automatically detect and classify predefined architectural objects from 2D image-based floor plans without any vector or layer data.
- Integrated OCR to extract specification codes from annotations, with OpenCV and Pillow for image preprocessing, and a UI-based visual validation layer using red-box overlays for design team review.
- Generated structured JSON outputs (object class, coordinates, counts) and DXF files compatible with ArchiCAD and AutoCAD.
- Achieved 80–90% detection accuracy across 4,000+ architectural plans, reducing the design review cycle from 2–3 days to a few hours per batch and cutting manual annotation workload by 65%.

AI For Satellite Image Recognition: Agricultural Applications

THIRDEYE

- Multi-Spectral Imaging: Use of satellite imagery with bands like Red, NIR, Green, SWIR, and Thermal.
- Advanced Data Processing: Calibration, georeferencing, and noise reduction.
- Feature Extraction: Calculation of vegetation indices (e.g., NDVI, NDMI, NDWI) and thermal indices.
- Predictive Modeling: Building models to predict crop health, water stress, and yield.

AI-Driven HSE Non-Compliance Detection

THIRDEYE

- Deployed a production-grade AI computer vision system that ingests live CCTV footage across industrial worksites to detect PPE violations (helmets, gloves, reflective jackets), unsafe behaviors, and hazardous zone conditions in real-time.
- Applied a multi-model stack, YOLOv5 for object-level violations, LSTM, and Optical Flow for temporal behavioral patterns like fatigue, improper movement, and unsafe proximity to machinery.
- Triggered real-time alerts via SMS, email, and dashboard pop-ups to safety officers, with built-in face-blurring to preserve worker privacy and maintain regulatory compliance.
- Delivered 90%+ detection accuracy and 70% reduction in manual monitoring effort; solution is now operational across multiple high-risk industrial sites across oil & gas, manufacturing, and construction environments.

Defects Detection System for Paper Mill

THIRDEYE

- Built a real-time AI surface inspection system using high-speed line-scan cameras, synchronized LED lighting, and deep learning (CNNs) deployed on NVIDIA Jetson edge devices to detect surface defects - wrinkles, tears, patches, and streaks — during high-speed paper roll production.
- Designed to operate within the 1-hour defect correction window before rolls are irreversibly formed, enabling early intervention that existing legacy systems (PASTEX, ABB, VALMET) could not provide cost-effectively.
- Generated real-time operator alerts and a monitoring dashboard showing defect type, location, and severity, with defect data integrated into the customer's MES and quality control systems for traceability.
- Achieved 93% detection accuracy and 36% reduction in product rejections within the first 3 months of deployment, with an expected ₹1.8 crore annual savings.

Automated Inventory Counting System

THIRDEYE

- Built a mobile-first computer vision + LLM hybrid platform to replace manual stock audits across a large international warehouse network handling bulk commodities (sacks, bales, crates).
- Developed a unique "Dual-Image" mathematical counting approach - capturing front-face and side-face images via smartphone to compute 3D stack volumes without fixed CCTV infrastructure.
- Deployed YOLOv8-X for primary object detection with an LLM-based secondary validation layer that auto-flags sessions exceeding a 5% count variance and triggers mandatory recounts.
- Delivered 97%+ counting accuracy and 80% reduction in audit time, with automated ERP reconciliation and tamper-evident visual audit trails for banking and compliance partners.

Foreign Object Detection in Food Production

THIRDEYE

- Built a real-time computer vision quality inspection system that integrates with existing CCTV/IP cameras on production lines to enable 100% continuous automated monitoring without hardware overhaul.
- Detects foreign objects, contamination, stale/burnt products, color degradation, and packaging defects in real-time during high-speed food manufacturing — aligned with HACCP Critical Control Point requirements.
- Triggers instant mobile and floor-level alerts with timestamped visual evidence to enable immediate intervention and auto-generates digital shift logs for GFSI/SQF audit readiness.
- Reduces reliance on manual line-watching labor and enables quality trend analytics by SKU, line, or facility to support long-term process optimization and supplier grading.

AI-Powered Furniture Detection & Spatial Estimation

THIRDEYE

- Built a mobile-first AI system using computer vision (YOLOv8), instance segmentation (Segment Anything Model), and depth estimation (MiDaS/DPT) to automatically detect and classify furniture items from 1–3 standard room photos.
- Converted 2D images into real-world spatial dimensions using reference-point calibration, computing floor space occupied per item and generating aggregated room-level metrics in under 10 seconds.
- Automatically translated spatial data into actionable logistics outputs — vehicle requirements, manpower allocation, and cost estimates — replacing the need for manual on-site pre-move surveys.
- Achieved >90% detection accuracy and ~85% reduction in human estimation errors, with APIs ready for integration into downstream ERP and logistics systems.

Data Platform & Analytics Projects

THIRDEYE

- Data Lake Implementation & Operationalization
- Data Lake - Design & Setup
- Data Platform + Daily Ops
- Data Platform Enhancements
- Migration to Hadoop-based Data Warehouse
- Various EDW/BI Projects
- Automated Data Pipelines
- Data Warehouse Migration
- Hadoop Data Warehouse Development
- Hadoop Data Lake & Analytics
- Various EDW/DL Implementation Projects

Data Lake Implementation & Operationalization

THIRDEYE

- Helping a Houston-based supply company to embrace a data culture in the company by setting up and operationalizing a data lake.
- ThirdEye has implemented the Data Lake Project and is currently working on next phases that involve AI-based implementations around Inventory Management for price optimizations.

For Phase 1, ThirdEye worked on the following items:

- Migrate all data sets, including ones in NetworkDrives to the new Data Lake based on Azure BlobStorage.
- Migrate data from SQL Servers to the Data Lake.
- Cleanse, prepare, enrich and transform data asneeded for downstream consumption.
- Implement data security structure and policies.
- Define & implement data governance policies.

Data Lake - Design & Setup

THIRDEYE

The client was a life-coach solutions provider, in its 20+ years of existence, has multiple sources of data for all its customers around the world, internal sales and marketing applications, and ERP systems that it uses for its daily operations. Data diversity is very high.

We started off the project with a detailed due diligence phase where we analyzed all its systems, spoke with all business stakeholders, and had in-depth technical conversations.

ThirdEye came back with a detailed report with specific plans that could be implemented to meet their business goals.

ThirdEye developed the Data Lake on Amazon AWS, ingested data from 200+ sources, of various veracity, volume, and type.

The data pipelines developed handled all types of transformations, correlations and cleansing as needed.

Data Platform + Daily Ops

THIRDEYE

ThirdEye worked on:

- cleaning up their existing AWS-based data platform
- adding more AWS Glue jobs
- implementing ETL pipelines for various data sources
- building the semantic layer
- building operational dashboards
- Performed daily requests for supporting theircurrent customers
- Generated reports as and when required
- Increased the overall data quality
- Optimized the database architecture, schema, and queries.
- Optimized AWS Glue jobs for performance

Data Platform Enhancements

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After the initial discovery phase, ThirdEye performed the following PoCs:

1. Data transfer, storage, analysis, and reporting using GCP services
2. API Monetization, User Registration, Text Search
3. Kafka Stream-based Pre-processing and Streaming Analytics

Based on the findings of the PoCs, ThirdEye developed the complete data platform leveraging new technologies and based on a MicroServices architecture.

Migration to Hadoop-based Data Warehouse

THIRDEYE

- Developed a Hadoop data warehouse on a 500+ node cluster operating in an on-premise cloud.
- Migrated the customer’s production services from Teradata to this Hadoop-based DW.
- Transformed, analyzed & migrated 500+ terabytes of data.
- Responsible for operational performance tuning.

Various EDW/BI Projects

THIRDEYE

- Deployed end-to-end system infrastructure for iRadio EDW.
- Delivered and managed iAd performance metrics for Apple Business Units on Hadoop and Teradata platforms.
- Migrated iCloud and Game Centre end-to-end reporting applications from Teradata to Hadoop(300+ TB of data).
- iAd Data Modeling - initiated from scratch and completed all levels of Models.
- Fine-tuned several processes on Teradata or on the Hadoop side as per business stakeholders' needs.
- Setup Sandbox environment for data discovery for data scientists.
- Benchmarked various products for suitability of various requirements for Apple internal consumption.
- Set up infrastructure for fraud detection and management in Billing and other Apple iTunes data.

Automated Data Pipelines

ThirdEye built an AWS Cloud-based Data Lake.

- Developed automated data pipelines for ingesting retail data from 500+ online retailers.
- Persisted all data feeds on an ElasticSearch cluster on a daily, weekly, monthly, and on-event basis.
- Aggregated data based on UPC of retail items on a daily, weekly, and monthly basis.

Data Warehouse Migration

THIRDEYE

- Strategized and deployed the management of the migration of processes and Database platforms from Oracle to Teradata
- Performed Data Modelling Using System Architect for Oracle ERP Financial Modules
- Performed Oracle ERP reporting Migration Analysisto MicroStrategy reporting tool

Hadoop Data Warehouse Development

THIRDEYE

- Developed & supported a Hadoop Data Warehousing Platform - both on-premises & on cloud.
- Developed Data Pipelines for complex multi-source, multi-format ingestions.
- Performance Tuning & Optimization of HiveQL queries needed for DW operations.
- Supported SAS-based data scientists to migrate to the Hadoop platform.

Hadoop Data Lake & Analytics

THIRDEYE

- Developed end-to-end data lake solutions for rebuilding their infrastructure on Hadoop technologies.
- Implemented these solutions:
- New customer data import.
- Data pipeline for real-time streaming & batch data.
- Analytical capabilities for the Data Science team.
- Visualize & perform ad hoc analytics on interactive dashboards.

Various EDW/DL Implementation Projects

Right from ThirdEye's inception in 2011, it has been deeply involved in various Data Warehouse migrations and Data Lake implementation projects.

ThirdEye's Co-Founder & Chief Data Officer, Aparajeeta Das, has worked in these companies as a full-time employee, mainly working in the Data warehousing (DW) and Business Intelligence (BI) teams.

Our AI Products & Platforms

THIRDEYE

Optira

An AI-powered intelligent document processing platform that automates extraction, classification, conversion, and conversational querying of enterprise documents to turn unstructured content into actionable insights.

Safera

A predictive analytics platform for crime and risk analysis that helps law enforcement and public safety agencies detect, analyze, and forecast crime or suspicious activity using machine learning and big-data insights.

Learning Path

A structured learning platform offering curated paths designed to build practical AI and data skills through hands-on projects and expert mentorship for early-career professionals and students.

Verified Customer Reviews & Testimonials

THIRDEYE

Independently Verified by Clutch

Their project management and communication were top-notch. ThirdEye Data planned the project well, completed the work on time, and delivered what we expected.

Andriy Romanyuk
Head of R&D, Glas Trösch

★ ★ ★ ★ ★

Independently Verified by Clutch

ThirdEye team went above and beyond to actualize our ambitions. They were a pleasure to work with. We were delighted with the partnership.

★ ★ ★ ★ ★

Matt Singer
CEO, Ecotrak

Check All Reviews

THIRDEYE

Contact Information

Connect with us to learn more about our previous projects, customer engagements, technology expertise, or to discuss your business use case and solution approach.

Corporate Website: www.thirdeyedata.ai

Connect With Us: linkedin.com/company/ThirdEyeData

Explore Our AI Demo Central: www.democentral.ai

SCAN TO CONNECT