

INNOVATION SERVICES FOR FORWARD THINKING COMPANIES

Let's build something that your
customers will love



SOME HEALTHCARE CLIENTS

You have probably experienced our tech.

Medtronic



TECHNOLOGY CAPABILITIES

We've developed top quality applications with hundreds of clients for more than a decade. From one person startups to Fortune 500 enterprises, universities, and nonprofits. We cater to clients from different domains including Healthcare, Banking, Manufacturing and Retail segments.

Product Engineering

Solution consulting and CTO consulting

Data Engineering

Glue, Talend, Informatica, Redshift, Kafka, Kinesis, MongoDB/DynamoDB, Redis, ElasticSearch, Hadoop, PostgreSQL/ MySQL Athena

Data Science & Visualization

Python, R, Spark, SageMaker, TensorFlow, PyTorch, D3, Tableau, QuickSight, Jasper, Vertica

Performance & Scalability

AppDynamics, Dynatrace, NewRelic, JProfiler, JTop

Testing

Manual & Automation Testing using Selenium, Protractor, JMeter, Appium, Rest-Assured

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Front End Engineering

Angular, React, Vue.js, PWA, Typescript, Webcomponent, Ionic

Cloud native

Cloud foundry, Netflix OSS, AWS, Azure and Google Cloud Platform

Back End Engineering

Java, NodeJS, Python, GoLang, PHP, Ruby, Rust

DevOps

Jenkins/Gitlab, GoCD, Kubernetes, IAC(Terraform, Ansible, Chef, Plumi)

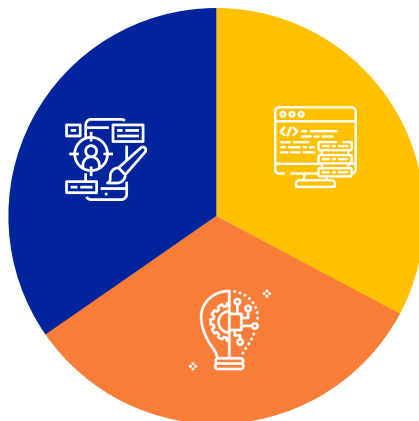
Mobile

iOS, Android, Hybrid using Ionic and React Native

DATA SCIENCE CAPABILITIES

THOUGHT LEADERSHIP

Headed by a tech-savvy ex-googler, our strong leadership team includes **PhDs, ivy-school grads, and big company delivery champs** who steer AI-based Product Development and Project Delivery.



TECHNOLOGY SKILLS

Our team of Data Science engineers possess extensive experience in niche areas like **Julia, Python, R, ML algorithms, Deep Learning, PyTorch, Tensorflow, Keras, Sagemaker, MLFlow, Azure ML Studio and Big Data.**

DELIVERY EXCELLENCE

We have developed **top quality cognitive applications** including Smart Security Monitoring Solution, Intelligent distributed supercomputer, Smart Digital Meters and Intelligent Chatbots.



**DATA SCIENCE POTENTIAL USE
CASES IN ULAB SYSTEMS**



USE CASE: ULAB ORTHOPILOT

Business Objective : The objective of the Orthodontics AI Copilot for Doctors is to provide an automated assistant to help doctors with their orthodontic practices. The AI Copilot should be able to **accurately and efficiently diagnose, develop treatment plans, and provide support** to doctors in their orthodontic practices. The AI Copilot should also be able to effectively communicate with doctors, providing a streamlined and efficient experience.



COMBINED AI MODELS FOR ORTHO CO-PILOT

- **Risk Identification** - AI model to predict the teeth collision and root analysis to provide the better design
- **Cephalometric Analysis** - AI Model for evaluating the relationship between the skeletal and teeth
- Future **dental disorder** prediction using neural network. Ex: tooth decay, gum disease, root infection, enamel erosion
- Teeth detection from the scanner result/image using CNN
- Teeth Auto segmentation and alignment using neural network
- AI for determining need for orthodontic extractions
- AI for predicting the need for orthodontic treatment and treatment planning
- Reinforcement Learning models

The co-pilot system is estimated to reduce the time spent on each case by 2/5th and increase system usage by a factor of 10, according to analysis.

USE CASE : U-SMART ORTHO DENTAL AI MONITOR

Business Objective : To develop an AI-based system for orthodontic dental monitoring that **accurately monitors and predicts dental health trends, identifies at-risk patients, and provides personalized treatment** recommendations to improve the outcomes of orthodontic treatment



SOLUTIONS

- **Patient can frequently evaluate their treatment through Image based treatment evaluation system using Neural Networks**
- **Growth and Optimization** - Differentiate your practice to stand out from the competition and attract more patients. Leverage comprehensive data and analytics to streamline practice workflows and reduce workload and stress for doctors and practice staff, while unlocking new revenue opportunities.
- **Quality** - To ensure that care is delivered in line with patient needs, improve clinical control and safety with validated remote treatment monitoring, and adjust treatments as needed to maximize outcomes
- Powerful model for Practice performance analysis

Reduce chairtime, spot earlier treatment plan change and boost engagement

USE CASE : AI in MANUFACTURING

Business Objective : The AI-Powered Intelligent Manufacturing Platform is designed to help factory professionals optimize their operations quickly and effectively. Powered by advanced artificial intelligence, it leverages existing data and sensors to improve quality, efficiency, and throughput within days



SOLUTIONS

- **AI model for predictive maintenance system** - Prevent unplanned equipment downtime to improve factory efficiency while reducing costs
- **AI-based visual inspections and quality control** - Differentiate your practice to stand out from the competition and attract more patients. Leverage comprehensive data and analytics to streamline practice workflows and reduce workload and stress for doctors and practice staff, while unlocking new revenue opportunities.
- **AI for purchasing price variance** - Estimating raw material costs accurately and choosing the right vendors is a major challenge and Predict a standard purchase price using historical data and market trends
- **Advantage:**
 - 30-50% decrease in machine downtime
 - 15-30% increase in labor productivity
 - 10-30% improvement in throughput
 - 10-20% reduction in quality-related costs.

USE CASE : ULAB DESK ASSISTANT

Business Objective : People from Sales, Finance, Marketing & Technical teams use this system to pick relevant answers from a vast pool of documents and information using the **Document Search System** and **NLP** that intuitively finds the **best results** based on the **business relevance of the queries** and presents the related search results together.

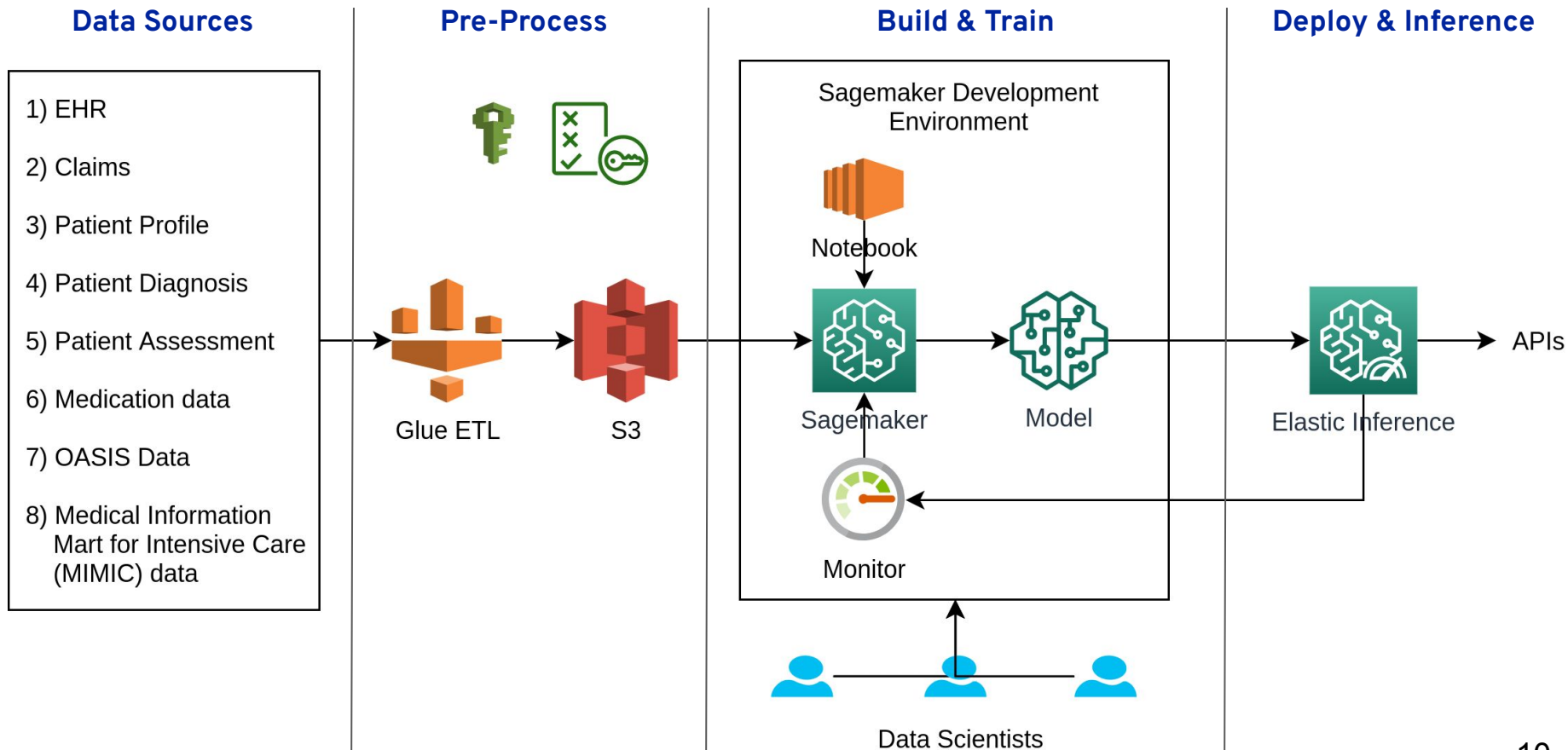


Help Desk Automation using Deep Learning

- **Communication system-** Frequently hit with customers to convert the quote to order cases
- AI system to identify the action items based on email or text and execute the action item
- Automate the Sales, CS and finance team day to day operations
- Support system for Doctors incase of any queries
- Example: Setting reset request, CC prompt request, charging activity, customer onboarding, promo definition details inquiry, balance enquiry, training activity related queries

Reduce 30 to 40% of repetitive and non technical work time spend by finance, cs and sales team

General Architecture for DS Models using AWS



Thank You



| Let's
Innovate

Innovation Partner for Forward thinking companies



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