



Healthcare Integrative Solutions, LLC 2018 Avenue B • Suite 200 • San Antonio, TX 78212

A Specialize consulting firm that provides Informatics based innovative solutions for clients in healthcare and pharmaceutical research.





### **Company Overview:**

Healthcare Integrative Solutions is a consulting firm that specializes in providing Informatics based innovative solutions for clients in healthcare and pharmaceutical research. We have a broad portfolio that can help our clients in varying industries from Healthcare to Biotechnology. Our consultants have decades of experience in pharmaceutical research and healthcare. We provide custom solutions in both domains to meet the business objectives of our clients. We have a proven record of providing trusted solutions. We have clients throughout the US who bear testimony to our expertise and business solutions.

#### **Our Management:**

Our executive team includes Nagarajan Sankrithi who holds a PhD degree in Life Sciences from Northeastern University and MHA from Cornell, Eduardo Guimbarda who holds an MBA from University of Texas, San Antonio and MHA from Cornell and Mukund Raghunath who holds an MBA from University of Chicago. Nagarajan Sankrithi has over 18 years of experience in pharmaceutical research informatics (cheminformatics & bioinformatics) and public health informatics implementing data management, data warehousing and data analytics for drug discovery and preclinical research. Eduardo Guimbarda has 32 years of experience of running a home health organization based in San Antonio and has been a healthcare consultant. Mukund Raghunath has 20 plus years of experience in running large scale analytics organizations and partnering with Fortune 500 clients in defining and executing their data and analytics strategy.

# **Healthcare Consulting:**

Healthcare Integrative Solutions is your trusted partner for solving your healthcare needs. We are an organization focused on providing innovative solutions to your complex challenges. Toward this, we attract and retain top talents in the software and business industries. Our data scientists have extensive expertise in data management, data science, statistical modeling, machine-learning, data warehousing and data clean up. They have a proven track record for delivering high quality software products in record time. With over 25 years of experience, we have worked in every aspect of the healthcare continuum. Healthcare Integrative Solutions works with your business to identify your unique challenges and will establish a framework to achieve your goals, including patient outcomes, fiscal performance, and operational excellence. With a bias for action, we work with your team to find the best way to implement the best patient continuum strategy. Let Healthcare Integrative Solutions help you navigate your patients through the healthcare continuum.



Nagarajan Sankrithi, PhD, MHA



Eduardo Guimbarda, MBA, MHA



Mukund Raghunath, MBA



#### **Our Specialty:**

We specialize in the delivery of point solutions as well as provide embedded data science teams to enhance client teams. Our philosophy is to provide the benefit of a domain-specific ecosystem by bringing a well-functioning team that comprises industry experts in health care (EHR and EMR), life science informaticians, statisticians, programmers, and project managers to solve your data science challenges.

#### **Market Analysis:**

Our team has expertise in gathering market trends, size, competitive intelligence, cost analysis, profitability, risk assessments, and other key metrics for successfully entering a market for technology and healthcare initiatives.

#### **Pharmaceutical Research Data Management**

We bring over 20 years of expertise in Pharmaceutical and Public Health Informatics. Our experienced consultants will provide business analysis, project management, requirements specification, vendor selection and professional services in research IT systems: LIMS, ELN, Data analytics, data warehousing, dashboards for cheminformatics and bioinformatics applications. We specialize in delivering custom research informatics automation and start-to-finish data management solutions that include bespoke development for assay management, data visualization and decision support applications for biologics and small molecule pre-clinical research. Our subject matter experts have expertise in gathering scholarly articles, web scraping, parsing relevant details and storing them in dedicated Research Data Management databases for quick access. We can help in customizing the client's needs for implementing a cloud-based Data Management Platform for fast retrieval of research data. We are experts in building large and small full stack web applications for healthcare organizations and pharmaceutical research teams.

#### **Services**

We provide expertise in five key markets and help our clients reach their business goals. Business Analysis:

We leverage state of the art business-intelligence to improve clients business needs. Our team will start by working with clients on-premise and then remotely as needed to gather, communicate, validate requirements to stakeholders.

#### Data Engineering:

We have one of the broadest solutions in the industry for architecting data flow from start to finish to achieve scale and accuracy. Our Engineers can provide precise engineering solutions for all segments of Data Analysis, thereby assisting clients in releasing their products to the market with high confidence. Our team can provide robust data backup and recovery solutions. We also specialize in disaster data recovery management, thereby providing peace of mind to our clients during dire situations.

# Data Science:

Our team can provide varying types of Data Exploration, Modeling, Productization and Result Analysis and prototyping of the solution. Our solutions give clients a head start in understanding their complex data, thereby guiding in accurate solutions. We can provide optimized feature extractions, model selection and accurate predictions and automated machine learning pipelines.

# **Full stack Applications:**

Our team can develop custom interactive full stack web applications using a broad range of frameworks including Django, React, Angular, Shiny, etc. Our developers have extensive experience in building both client and server applications. Our team will work with clients to suit their companies needs for developing a robust web application with user friendly dashboards, workflow charts, data entry fields, visualization charts, information cards, interactive live plots, notifications, and other modes of communications.

# **Documentation and Training:**

Our team will work with clients in creating collaterals that the end users can rely upon for successful use of the product. We provide both on-site and remote training sessions for our clients. In addition, we provide extensive product and technical documentations to assist clients in understanding all aspects of our solutions.

# **Cheminformatics and Bioinformatics:**

Our team members have extensive experience in providing vendor point solutions in both Cheminformatics and Bioinformatics. These include discovering small molecules for therapeutics and Next Generation Sequence analysis. Our bioinformaticians can do comprehensive sequence analysis including variant analysis and help in identifying disease causing mutations in genes. We also have expertise in proteomics research and can provide a wide range of solutions for structural biology projects including protein sequence analysis, motif identification, and drug-target analysis. To achieve this, we select the best SMEs, data scientists with relevant expertise in Bioinformatics and Cheminformatics, Machine Learning, Artificial Intelligence and Data Engineering.

# **Custom Scientific Solutions:**

We can provide cloud-based solutions for your Healthcare and Life-Sciences needs, providing secure access to patient and research data. To achieve this, we choose Engineers with specific experience in current capabilities in AWS data engineering. Our engineers will work with clients in setting up the custom cloud-based solutions and provide 24/7 assistance. Additionally, our cloud based real-time dashboards and visualization tools can assist clients in making informed and timely decisions about their products.





# **Biologics Process Development Gene** cloning software:

With a combined experience of 30 years in molecular biology and software development, we have the expertise to develop Biologic Process development software which can include experiment planning, efficient project management, document processes, streamlining QC/QA processes, assisting in CAPA, provide workflow solutions that connect a wide range of processes including people, instruments, data, and reports. In addition, we can provide curated databases of research data which can aid in product development. Our robust algorithms can provide insights into a variety of data and assist clients in making informed decisions about their product development. We can assist clients in eliminating manual data capture including paper trails and spreadsheets so that they can focus on their research and innovations.

# Provided is an example of a typical gene cloning software and their components:

#### Design:

With a curated database of commonly used cloning vectors and primers, the users can accurately design clone constructs. An interactive design construction tool can feature both manual and automated design constructions based on user input. Our complex algorithms can detect any flaws in the design, flag them and assist the user in fixing the errors. In addition, our software can support all cloning techniques available in the market.

# Visualization:

Our front end developers can create a comprehensive visualization tool which can include data input, viewing plasmid features, ability to annotate and save designs. The visualization tool can be highly customizable and can display all PCR related details such as enzymes, primers, ORFs, etc in both label and sequence formats. In addition, the tool can save history for each project which can be retrieved on demand. The output files can be exported in various file formats including standard and binary formats for downstream consumption.

#### **Sequence Tools:**

We can provide sequence alignment tools to validate clone constructs which incorporate popular alignment features such as pairwise and multiple sequence alignments. Most commonly used search tools can be incorporated for protein and nucleic acid sequences which can be integrated in design construction.

General:

Our software can be designed to work in cross platform environments including windows, mac, and Linux. We also offer cloud-based solutions.



We are excited about the opportunity and looking forward to a conversation to learn about this project and as well as any other projects you have in mind. With our proven expertise, let us help you achieve your innovation goals.



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