

Hank Head

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OVERVIEW

<p>BUSINESS SKILLS Product Strategy Clinical Decision Support HL7 FHIR Agile Leader Health IT Market Analysis International Business</p> <p>TECHNICAL SKILLS Requirements Analysis User Interface Design HCI / Usability Analysis System Deployment Data Analysis</p> <p>DESIGN TOOLS Pen / Paper Balsamiq Markups Illustrator / Photoshop Morae Usability XHTML, CSS FLASH Visio Flow Charts Mindmapper</p> <p>Health IT TOOLS Protégé Ontology Mapper UMLS / NCI EVS Mirth HL7 Integration HL7 FHIR (ruby)</p> <p>METHODOLOGIES Agile Methods XP - Kanban Planning Game User Story Mapping Fast Iterations UI Testing</p> <p>STANDARDS HL7 GLIF LOINC ICD (9 &10) FDA 21 CFR 11 HIPAA ISO 1497 (Risk Mgt)</p> <p>DEPLOYMENT PLATFORMS Linux (LAMP) Mac OSX</p>	<p>My objective is to help companies discover and innovate new software concepts and business strategies that help improve the quality of care and improve outcomes. My ideal projects focus on clinical decision support, advanced medical records and data visualization at the point of care.</p> <p>I have seventeen years of experience working with doctors to create clinical decision support and medical records software for clinics and hospitals around the world. I have participated in and led the full life-cycle of systems development from market analysis, conception, planning, and requirements definition, through development, testing, deployment, and customer support. My primary strength is as product conceptual / interaction designer and product owner (as defined in Agile development methods). I have been labeled an “intre-preneur” by many colleagues.</p> <p>Other strengths include: lean hypothesis testing, usability facilitation, requirements analysis, risk management and mitigation (related to software that must meet regulatory requirements), team building, problem solving and agile coaching. I routinely manage relationships with a broad spectrum of individuals including government officials, executives, vendors, business clients, domain experts and other IT professionals. I love to share the lessons learned in the CDS IT community.</p> <p>EXPERIENCE HIGHLIGHTS:</p> <p>Business and Product Strategy and Planning Deep understanding of Value based care. Understanding of medical informatics trends to improve medical quality through the use of information technology / CDS and data analytics. Analysis of Pay for Performance (P4P) via IOM, CMS and other Reports Business Plan authoring (product strategy, competitive review, market direction) Lean business planning skills to help control costs with new development or incremental change</p> <p>Product Management Inter cultural communication skills working with diverse international teams Project planning and management activities, including task estimates and tracking Interviewing, selection, and management of teams Performance appraisals and feedback Establish release schedules</p> <p>Domain Knowledge Clinical Decision Support Systems (Rules and Statistical Based Systems) Medical Records with Electronic Data Interchange (FHIR) to labs and pharmacy Rules Authoring Systems (Drug Data, Genomics, and Clinical) 3D Immersive Interfaces (Building Architecture and Engineering) Civil Engineering (Water, Road and Site Design) Architecture (Commercial Building Design)</p> <p>User Interface Design Extensive experience gathering and analyzing user requirements Deep understanding of medical and pharmaceutical data and object models Strong skills developing rapid prototypes, user interface (UI) designs, and specifications Consistent success leading usability studies with doctors, nurses, pharmacists</p> <p>Project Implementation Hands-on system implementation in clinics and hospitals around the world Training of partners, lead trainers, and medical staff Navigation of political issues associated with government and not-for-profit projects</p>
<p>EDUCATION</p>	<p>BS - Civil Engineering and Architecture, University of Southern California, CA - 1992</p>

Proventys Inc. / McKesson. DURHAM, NC and Boston, MA

July 2008 – Present SR. DIRECTOR OF CLINICAL DECISION SUPPORT

Roles
 Director of Design and Development
 Interaction Designer
 Product Owner

Projects
 Febrile Neutropenia Risk Prediction Tool (FDA)
 NCI Advanced CDS Platform
 NCCN CDS guideline point of care tool
 NCCN Guideline Authoring system

Key Skills
 Interaction Design and Analysis
 Product Strategy
 Agile Team Management

VP /Sr. Director / Product Conception / Interaction Designer / Product Owner for Guideline based Clinical Decision Support Tool and Guideline Authoring System

- Build business models to support team expansion
- Grow team from 8 to 30+
- Sell tools to internal stakeholders, hospital CIO's, Pharma
- Perform Market Analysis / Design and facilitate market research
- Interview users (doctors and nurses) and build user profiles
- Develop major user workflow scenarios and usage scenarios
- Rapid prototyping - paper prototypes, mocks and Illustrator / Photoshop click through
- Design and Lead extensive usability testing with over 500 oncologists over 5 yrs
- Perform risk analysis and design risk mitigation features for software that has been submitted to the US FDA as a medical device
- Work with the National Cancer Institute (NCI) to prototype advanced CDS products for use by clinical oncologists
- Work closely with the National Comprehensive Cancer Network (NCCN) to develop guideline authoring tool to create non-ambiguous computable guidelines.
- Design iPhone and iPad web applications for clinical decision support point of care guideline tool for oncologists and staff
- Design interface strategy (CDS / FHIR) for guideline consumption by EHR systems
- Lead strategic product direction and day to day tactical development team management

Broadreach Health / Privia Health. WASHINGTON DC, USA

Nov. 2007 – Dec. 2008 [TECH LEAD / CONSULTANT]

Roles
 Software Lead

Projects
 Privia Health Platform

Key Skills
 Software Design
 Team Building

Director of IT Products / Health Informatics Consultant

- Design wellness platform for concierge health program
- Build software development team
- UI design for product
- User testing with call center nurses
- Ket innovations: semantic linking between concepts / goal based care
- Assist in forming early start up for Privia health

THERASIM, INC. DURHAM, NC

AUGUST 2006 – July 2007 [CONSULTING AS VP OF PRODUCTS / INTERACTION DESIGNER, CLINICAL DECISION SUPPORT]

<p>Roles User Interface Analyst VP of Products (Product Owner)</p> <p>Projects Drug Interaction Authoring Tool Electronic Medical Record Patient Training Simulator</p> <p>Key Skills UI Design and Analysis Product Strategy Agile Methodology eXtreme Programming</p>	<p>User Interface Analyst / Product Owner</p> <ul style="list-style-type: none"> • Design and prototype the user interface and workflow for a CDS drug interaction and dosing rules authoring system • Design, specify, and lead the development of the TheraSim Open Source Electronic Health Record • Work with key distributors to obtain user feedback for a redesign of the TheraSim Clinical Patient Training Simulator • Analyze user behavior via click-tree study and create user interface prototype for development team <p>VP of Products</p> <ul style="list-style-type: none"> • Work with CEO to develop TheraSim Clinical Performance Management (CPM) and Clinical Decision Support (CDS) Product Strategy • Review latest publications on P4P, Performance Evaluation and Criteria to determine how to use the company technology in the emerging CPM market • Assist in the authoring and revision of company business plan • Introduce agile software development methodologies such as rapid prototyping and test driven development
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GROUND ZERO SOFTWARE - Durham, NC and AFRICA

JULY 2005 – AUGUST 2006 [VP OF INTERNATIONAL BUSINESS]

<p>Roles VP of Business Development Requirements Analyst Implementation Analyst</p> <p>Projects GAIA Vaccine - Mali Swiss AIDS – Zimbabwe Manzini - Swaziland Mputo – Botswana</p> <p>Key Skills International Customer Relationship Management User Needs Analysis</p>	<p>VP of International Business</p> <ul style="list-style-type: none"> • Create international reseller distribution channel for the LabTracker HIV Medical Record • Build and manage customer relationships in government, NGO, and private organizations <p>Requirements Analyst</p> <ul style="list-style-type: none"> • Design and specify modifications to the LabTracker EMR for use in Africa and Asia for a CDC-funded HIV/AIDS (PEPFAR) initiative • Design custom reports for Ministry of Health of Zimbabwe <p>Implementation Analyst</p> <ul style="list-style-type: none"> • Coordinate International projects between private sector, governments and NGOs, to identify and support global HIV/TB/Malaria information technology needs • Train international reseller partners on installation, technical support, and marketing of EMR and Clinical Decision Support systems • Present four years of developing-nation EMR implementation experience at conference and symposium
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THERAPYEDGE, INC. - Durham, NC, LUXEMBOURG, AFRICA

February 2000 – July 2005 [VP OF SOFTWARE PRODUCTS]

Roles VP of International Business VP of Products Director of Client Services User Interface Analyst
Projects Right to Care – South Africa UPenn – Botswana MOH – Thailand Virco Diagnostics – Belgium ACTG – SA Clinical Trial TherapyEdge – US Clinical Trial
Key Skills User Interface Design Requirements Analysis Product Strategy

VP of International Business <ul style="list-style-type: none">Prospect and close business leads in government, academic, and NGO sectors for medical records, clinical trials, and clinical decision support systemsCreate international reseller distribution channel for the TherayEdge HIV EMRAssist Advanced Biological Laboratories, SA (Luxembourg) in the acquisition and turn-around of TherapyEdge, Inc.
VP of Products / User Interface Analyst <ul style="list-style-type: none">Design and implement a USAID funded EMR and Clinical Decision Support system based on company patents using artificial intelligence to assist in multi-drug therapeutic decision support using genetic, medication, and patient chart dataDesign and implement a pilot pharmacogenomics system for a National Health Data-warehouse for HIV/AIDS Monitoring and Evaluation for the Government of Thailand;Gather information system requirements for the Ministry of Health of Nigeria for a HIV/AIDS Clinical Decision Support System and EMR; Write the specification and prototype the user interfaceAssist in the analysis and publication of outcomes data for CDS clinical evaluation study

ACA SOFTWARE - RTP, NC

February, 1999 - February 2000 [DIRECTOR OF SOFTWARE PRODUCTS]

Roles Director of Products
Projects Requirements Analysis Requirements Specification UI Prototype
Key Skills User Interface Design 3D Modeling

Director of Products <ul style="list-style-type: none">Design user interface for 3D visualization system for building information model (BIM) design software 3D component data warehouseDevelop software requirements and user interface prototypes for update to company Computer Aided Design (CAD) software productCreate software marketing strategy for US MarketProvide consulting services specializing in advanced 3D Visualization and CAD
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Prior work experience

Virtus Entertainment / ConceptCAD Architectural visualization software – Cary, NC (1997-1999)

FMSM Architects – Albuquerque, NM

Scanlon Engineering – Santa Fe, NM

PUBLICATIONS AND PRESENTATIONS

Research Interests

Error reduction via Alerts and Reminders based on fine grained drug and clinical chart data

Isolation of key indicators to prove CDS efficacy

Relationship between genetic markers and clinical outcomes

Statistical prediction of clinical outcomes

Hobbies

Disc Golf

Home Automation

Solar Home Tech

Disc Golf

Furniture Design

Austrian Economics

HL7 Applications Roundtable – Durham, NC

Mar, 2017

Oral presentation of the Clear Value Plus and Clinical Reasoning Platform

US Oncology Pharmacologics and Therapeutics

Mar, 2015

Oral presentation of the Clear Value Plus system

AMIA (American Medical Informatics Association) Conference, Washington DC USA

Oct, 2010

Poster presentation: Preserving the Physician-Patient Relationship: Designing a Clinical Workflow-Centric Decision Support System for Oncology Practice

AMIA (American Medical Informatics Association) Spring 2009 Conference, Orlando FL USA

June, 2009

Poster presentation: Usability Testing for Advanced Clinical Decision Support Systems.

Conference website for WHO Data Standards Workshop - Nairobi, Kenya

Dec 4-7, 2007

Participate and record workshop proceedings and build website for International Data Standards Community: create audio and video presentations and organization of data standards information. www.healthmetricsnetwork.info

Oral Presentation at the 3rd HIV/AIDS Conference in Bamako, Mali

February, 2006

TITLE: Lessons on Implementation of Medical Information systems in Africa

ABSTRACT: Case studies show that the hurdles to implementing modern information systems are much smaller than most realize. The primary need is for human capacity building in MIS systems analysis and implementation in the government and private sector. An overview of lessons learned in the field implementing medical records systems in Botswana, Swaziland, Mali, and Thailand.

Poster at the 3rd IAS Conference on HIV Pathogenesis and Treatment

July, 2005

TITLE: Optimization of Antiretroviral Therapeutic Regimen Selection and clinical care using the updated TherapyEdge-HIV Clinical Decision Support (CDS) system

ABSTRACT: A poster presentation showing the benefits of using an EMR with advanced decision support tools. There are proven benefits to using decision support for drug interactions and molecular tests such as rule based HIV virus Genotype resistance reports. This poster summarizes the benefits of using all of these tools within the workflow of an EMR.

Poster at the 5th International Workshop on Drug Resistance and Treatment Strategies

June, 2002

TITLE: Evaluation of a Clinical Decision Support System for Optimization of Antiretroviral Therapeutic Regimen Selection

ABSTRACT: A study of the use of the TherapyEdge-HIV system in 13 leading HIV clinics showing the improvements to the treatment and care choices made by HIV specialists. Study looked at the choices made before and after the review of a ranked list of “optimal Therapy Choices” as well as efficiency gains.

Presentation at the workshop on Data Management in Public Health Projects at the Harvard School of Public Health in Boston, MA

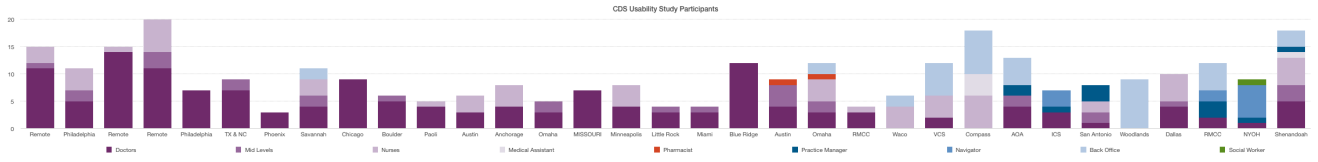
August, 2002

TITLE: Use of Patient Medical Records with HIV/AIDS Specific Decision Support for the management of ART programs in developing nations

OVERVIEW: An oral presentation showing how decision support software can help train HIV/AIDS care staff while supporting good health records management and reporting (M&E) requirements.

History of User Studies (Proventys / McKesson)

DESCRIPTION	CDS Usability Study Participants																																TOTALS		
	REMOTE #1 - NOV 2008	PHILADELPHIA #2 - FEB 2009	REMOTE #3 - MAR 2009	REMOTE #4 - JUL 2009	PHILADELPHIA #5 - MAY 2010	TX & NC #11 - AUG 2010	PHOENIX #12 - NOV 2010	SAVANNAH #15 - DEC 2010	CHICAGO #16 - MAY 2011	BOULDER #17 - SEP 2011	RAJLI #18 - NOV 2011	AUSTIN #19 - DEC 2011	ANCHORAGE #20 - JAN 2012	OMAHA #21 - FEB 2012	MISSOURI #22 - APR 2012	MINNEAPOLIS #23 - AUG 2012	LITTLE ROCK #24 - SEP 2012	MAMI #25 - OCT 2012	BLUE RIDGE #26 - NOV 2012	AUSTIN #27 - JAN 2013	OMAHA #28 - FEB 2013	RMCC #29 - MAR 2013	WACO #30 - MAR 2013	VCS #31 - MAY 2013	COMPASS #32 - MAY 2013	ADA #33 - JUN 2013	CS #34 - AUG 2013	SAN ANTONIO #35 - SEP 2013	WOODLANDS #36 - JAN 2014	DALLAS #37 - FEB 2014	RMCC #38 - APR 2014	NYOH #39 - MAY 2014		SHENANDOAH #40 - JUL 2014	
Doctors	11	5	14	11	7	7	3	4	9	5	4	3	4	3	7	4	3	3	12	4	3	3	2	4	3	1	4	2	1	5	5	191			
Mid Levels	1	2	3	2	2	2	2	1	1	1	3	6	2	7	4	3	1	1	4	2	2	2	2	2	2	3	1	1	3	5	5	58			
Nurses	3	4	1	6	2	3	3	1	1	3	6	4	4	1	1	1	1	1	1	4	4	4	4	6	5	2	2	2	5	5	6	60			
Medical Assistant																									4							1	5		
Pharmacist																																	2	2	
Practice Manager																																		1	11
Navigator																																			11
Back Office																																			4
Social Worker																																			4
NO. PARTICIPANTS	10	11	10	20	7	9	3	11	9	6	5	6	8	5	7	8	4	4	12	9	12	4	6	12	10	13	7	8	9	10	12	9	10	312	
NO. CLINICS	7	1	7	4	1	2	1	1	1	1	2	1	1	1	1	1	4	3	3	3	1	1	1	1	3	3	3	3	1	1	1	2	2	1	69



NOTES

Shenandoah Oncology (SHEN) - Winchester, VA
 New York Oncology Hematology (NYOH) - Citrus Park, Albany
 BayCare Mountain Cancer Center (RMCC) - CSD, Boulder
 Winnsboro Cancer Specialists (WCS) - New, CSD, Arlington Heights
 Arizona Oncology Associates (AOA) - Phoenix, Tempe, Green Valley
 Virginia Cancer Centers (VCC) - Loudoun, Reston, Fairfax
 Compass Oncology, Oregon - Rock Garden, CSD, Vancouver Cancer Center
 Blue Ridge Cancer Care (BRCC), Virginia - Roanoke, Salem, Blacksburg
 Little Rock, Arkansas - Harris, St. Vincent Baptist Dr.
 Minneapolis, Minnesota - Minneapolis, Eden, Burnsville, St Paul
 Pacific, Pennsylvania - Paoli, Mechanicsburg
 Chicago, Illinois - Physician Advisory Board

Mid Levels = Physician Assistant (PA), Nurse Practitioner (NP), Advanced Practice Provider (APP)
 Patient Care Coordinator (Nurse Navigator helps at NYOH, Patient Navigators and Nurse Navigators were all grouped with Navigators)