LEAD INTERACTION DESIGNER

Summary

Senior UX/UI Designer Profile: Tim has been involved in user centered design for over 20 years, with a focus on human factors and usability. He has worked on a wide variety of projects focusing on improvement of functionality and performance. He is an expert with Heuristic evaluation, usability, developing and evaluating user interfaces (GUI design), iterative design methodology and human computer interaction (HCI). Areas of experience: Usability & Interaction Design Usability engineering, Standards and guideline review, User interface design standards, Usability testing/Focus groups, Cognitive walkthroughs, Heuristic evaluation, Pluralistic walkthroughs, Website design, Interaction design, Personas, Use cases, Scenarios, Contextual Inquiries, Affinity Diagrams, Contextual Design, Ethnography, wireframes, user flows Development Software development standards, Software testing, HTML authoring, 3D modeling and programming, Advanced image manipulation and analysis, 3D interfaces, Interactive digital prototyping, Artificial Intelligence, touch input, SQL, Agile Development Other Secret military clearance, Military/ SPA WAR/DOD/ONR contracts, CDC/ NHSN, SaaS, Training and instructional design, Technical writing and editing, Project management, Healthcare, Medical Diagnostic Imaging systems, Electronic Medical Records, HIPAA, Fitness Equipment.

Highlights

- User Centered Design
- Human Computer Interaction (HCI)
- Innovation
- Agile Development
- Contextual Inquiries
- Wireframes
- User Flows
- Prototyping

Skills

User Centered Design:

Accomplishments

- Innovation Tournament award winner 2014 - Leveraging Real-time Algorithmic Dashboards (RAD's) to Improve Patient Care
- Innovation Tournament award winner 2013 - MARS: Medical Augmented Reality System
- 2009 IDEA Award - T7xe Treadmill
- 2009 Taiwan's Excellence Silver Award - T7xe Treadmill
- Patent 8,113,990 - Method of controlling an exercise apparatus Issued February 14, 2012
- Patent 8,360,934 - Method of controlling an exercise apparatus Issued January 29, 2013
- Patent 8,840,526 - Method of controlling an exercise apparatus Issued September 23, 2014

Experience

Lead Interaction Designer 05/2012 to Current Company Name City , State

- Tim is the lead interaction designer on a nine person Agile software development team creating software for use in healthcare facilities.
- His role as one of three BAs on the team has him conducting user testing and interviews, data gathering, persona development, wire-framing, story writing, interface analysis, and being the general usability evangelist.
- He acts as the NHSN point of contact, keeping the software compliant with evolving CDC requirements.
- His team produces incremental updates to the code base on a two week sprint cycle and the velocity of his team has increased steadily over the last six months.
- Tim also serves on the Wellness committee and the Safety Committee as a floor warden and first responder.

VP of Engineering / Product Development Director 09/2009 to 04/2012 Company Name City , State

- Tim worked as the VP of Engineering and product development.
- His responsibilities included managing the current suite of virtual reality software, designing the future software and hardware offerings, vendor relations, client support, systems design, sensor design, quality control and quality assurance, technology specialist, and usability evangelist.
- Other responsibilities included bringing new technology and opportunities to the company, driving the new vision for the company, and developing an on-line community around the new products.

Innovation Engineer 09/2009 to 04/2012 Company Name City , State

- Tim worked as an innovation engineer, bridging the gap between need and technology.
- He utilized his skills as an engineer to create unique solutions for client needs.
- Projects included:.
- Intoxiclock: Took third generation product and migrated it from simple input device to multimedia application on a netbook.
- Upgraded poster sized input panel to USB HID device.
- Created custom dynamic printouts of user data.
- GermBot: Designed a UV-C retrofit to a vacuum robot for use in sterilization of floors without chemicals.

Sr. Usability Engineer 02/2007 to 09/2009 Company Name City , State

- Tim acted as the resident usability expert in the development and production of a multitude of commercial and consumer fitness equipment.
- He was the primary innovator in the migration of the platform consoles from primitive LED displays to award winning advanced GUIs utilizing LCD displays.

- These innovative advances have allowed Matrix Fitness to expand into their markets, taking market share away from their competitors and positioning Matrix as the new market innovator and the product to beat.
- Tim produced interactive prototypes of all the interfaces and conducted user testing to validate his designs.
- He developed many tools and applications to aid in the production and testing of the new GUIs.
- He created a multi-screen interactive Kiosk that was used at numerous tradeshows as a selling tool for the new technologies that he helped develop.
- Tim was also very active in developing relationships with clients, vendors and possible business partners for Johnson.
- Among the people and companies that he brought in were: Best Buy, iTech Fitness, Lance Armstrong, PopCap software, Konami, Softkinetics, Big Rooster, NEC, LG, Dewar, Sharp, AMTouch, Immersion, RA Sports, and DataModule.
- Tim also served as the lead POC for partners such as iTech Fitness, FitLinxx, Polar, Virtual Active, Avnet and Eurotech.
- He also engendered relationships with Asian counter parts in both China and Taiwan with semi-annual trips overseas.
- Tim is also listed on several pending and awarded patents applied for by Johnson.

Sr. Usability Specialist 04/2006 to 02/2007 Company Name City , State

- Tim worked as the sole User Centered Design person on a small team developing a product in an emerging medical field market.
- He was responsible for all aspects of the UCD process and monitored adherence to the IEC 60601-1-6 usability requirements.
- He interacted with marketing, the engineering team and clinical contacts to develop personas, workflows, task lists, use cases as well as requirements for the engineering team.
- He used Macromedia Director to create a high fidelity prototype of the product and assisted the engineering team in porting that to FLEX.
- He gathered data and prepared for the third phase of the project which involved observational research, affinity diagramming, task analysis, and more UI design.

Human Factors and Usability Engineer 10/2003 to 03/2005 Company Name City , State

- Tim worked as a human factors and usability design specialist as well as a systems engineer, taking into account workflow, perception, usability, feedback, and aesthetics for an electronic oral feedback device.
- He was responsible for design and implementation of clinical testing and analysis software.
- Tim interacted with senior members of his team to define and then develop data visualization software.
- By following predefined standards and requirements, he proposed and designed a patient-tracking database to allow cross-referencing of multiple factors while adhering to security and privacy regulations.
- Designing and creating software for dynamically mapping the sensitivity of the tongue.
- GUI design, workflow, interlocks to eliminate user error, strict adhesion to standardized data collection procedures.
- Designing and creating software for visualization of collected data.
- Sitting in on design sessions and acting as resident Human Factors advocate GUI design, workflow, dynamic data analysis, 2D and 3D visualization, spacial and temporal visualization, interviewed users to determine usage, linking to multiple data sources.
- Designing and creating image projection software GUI design, workflow, image processing, 3D interpolation and projection Designing and creating software for dynamically stimulating the tongue with an electrostatic tactor array GUI design for human computer interaction (HCI), safety interlocks to control correct data input, dynamic stimuli manipulation.
- Developed and evaluated user Interface design and user interface compliance using iterative design methodology with user feedback.
- Designing and developing a subject database to track subjects and allow for analysis of subject data across multiple factors.
- GUI design, subject confidentiality, data integrity, robust system recovery.

Project Manager and Human Factors / Usability Engineer consultant 08/2001 to 09/2002 Company Name City , State

- Tim worked as a human factors specialist by defining GUI standards, look and feel, and conforming to existing software specifications.
- Responsible for all aspects of the software development cycle from inception to delivery.
- Defined the user interface for Palm and Windows CE devices.
- Detailed requirements gathering.
- Review of client's needs and application functionality.

Product Manager / Sr. Engineer 09/2000 to 08/2001 Company Name City , State

- Tim was responsible for all aspects of the development cycle of the Video Pics and Paparazzi Pics products.
- These included defining the products by means of prototypes and concepts and then generating product specifications.
- He also acted as the Human Factors advocate to aid in the design process.
- Tim served on the following project areas: Used human factors and usability design principles including heuristic evaluation when designing and prototyping the next generation VideoPics product in Macromedia Director.
- Defined and executed the QA/QC process.
- This involved setting up a QA bugs database, running compatibility testing, establishing version control, and heading up customer service and FAQs.
- Evaluated and allocated resources including hardware, media, off-site web hosting and programming staff.
- Established milestones to meet promised deadlines for product delivery.
- Interfaced with the marketing group to define products that were viable in the market place.
- Created all of the demos and helped with the collateral materials for the shows.
- Set up an online store that allowed users to purchase the product.
- Once the purchase was made, the information was entered into our customer database and the product was shipped through our shipping

department.

- Managed many 3rd party relations such as OEM bundling, back-end print services, and strategic partners.

Scientist 11/1997 to 09/2000 Company Name City , State

- Tim worked as a human factors and usability engineer on many projects.
- He designed and programmed a tactical graphics application (TacGraph) for the Global 2000 wargames.
- Tim also designed and implemented stimuli and experiments for research being conducted on 2D and 3D interfaces.
- These experiments ranged from basic 3D shape recognition to determining routes in a 3D terrain.
- Tim also developed a GUI based version of a text based nurses' orders system for the VA hospital that was to replace a very dated command line system.
- Designed and prototyped user interfaces for the tactical situation awareness tool (TacSAT).
- Conducted interviews with 5th Marines at Camp Pendleton and integrated new design ideas into the TacSAT.
- Design and implementation of an experiment based on the TacSAT that simulated a real engagement to determine how experience affected the decision making process.
- Worked with a team of Human Factors PhDs to determine the benefits of 3D interfaces.
- These experiments tested object recognition, spatial relationships, occlusion, depth of field, perspective, depth cues, and other factors.
- Worked with a team of Human Factors PhDs to develop experiments in shared awareness, data integrity, reliability, and multimodal perception.
- Worked closely with Principal Investigators from SPAWAR, DOD, NIMA, and DNR under a SECRET military clearance.
- Designed and implemented a GUI for a text-based nurses' orders system to gather performance and behavioral data.
- The new system increased efficiency and reduced error by over 80%.

Software Engineer and Human Factors / Usability Engineer 11/1993 to 03/1998 Company Name City , State

- Tim worked with a 5-person team to rework a graphical user interface (GUI) for an Internet TV set top box under extreme time constraints.
- His role was primarily prototyping and user centered design of the GUI.
- He also served as the lead prototype engineer and project manager for the graphical adventure game Timelapse.
- He worked with a team of talented designers, engineers, and artists on 9 cross-platform interactive edutainment titles.
- Acted as the usability and human factors evangelist in every project with which he was involved.
- Ran focus groups.
- Rolled out field trial in Austin, TX.
- Collected and analyzed data of online usage in an attempt to better understand the users.
- Assembled numerous conceptual prototypes for presentation to GTE VPs.
- Assisted in the game design for 9 titles produced and distributed by GTEIM.
- Established processing methods for converting rendered images created in Alias, and animations created in PhotoShop and Director, into usable assets.
- Designed, prototyped, and coded product demos used for retail and trade shows.
- Acted as the lead puzzle prototyper for "TIMELAPSE." Worked as the chief technologist for "TIMELAPSE." Responsibilities included investigating current and emergent technologies and determining if they were applicable to the game.
- Traveled to Knoxville, TN to manage the engineering team at Cyberflix for 3 weeks and establish game requirements.
- Duties also included training on the use of production tools, establishing a minimum system requirement, testing of new game engines, establishing asset needs, communicating with GTE Entertainment in Carlsbad, CA as to the status of our engineering efforts.
- Worked as a liaison for the marketing department for the production team.
- Designed and developed a 3D chat area using Onlive!'s Traveler and 3D Studio Max.

Education
B.S. Degree : Cognitive Science June 1993 University of California City , State , USA

Cognitive Science

Affiliations

- CHI UX Community
- Human Factors and Ergonomics Society (HFES)
- IxDA Madison
- User Experience Group

Publications

- Holste, S., Kobus, D., Proctor, S., Bank, T., & Liebhaber, M. (1999). Decision making in a dynamic but uncertain environment. San Diego, CA: Pacific Science & Engineering Group, Inc. Manuscript in preparation.
- Kobus, D.A., Proctor, S., Bank, T.E., & Holste, S. (2000). Effects of experience and uncertainty during dynamic decision-making. In Proceedings of the 44th Annual Meeting of the Human Factors and Ergonomics Society. Santa Monica, CA: Human Factors and Ergonomics Society.
- Proctor, S., Bank, T.E., Holste, S., & Kobus, D.A. (1999). TacSAT demonstration user's manual. San Diego, CA: Pacific Science & Engineering Group.

- St. John, M., Proctor, S., Callan, J., & Bank, T. (1998). The command post situation awareness tool (CPSA): An evaluation. Presented at the APA, Division 21 and Human Factors and Ergonomics Society Midyear Symposium, San Diego, CA.
- Smallman, H.S., St. John, M., Bank, T., and Cowen, M.B. (2000). The effects of motion parallax, drop lines, and object size in localizing tracks displayed in perspective view. SPAWAR Systems Center San Diego, CA. Technical Report, in preparation.
- St. John, M., Smallman, H.S., Bank, T., and Cowen, M.B. Tactical Route Planning Using Two-Dimensional and Three-Dimensional Views of Terrain. SPAWAR Systems Center San Diego, CA. Technical Report, in press.