

# Creative Ideas...

## **Project Engineering**

- Senior level systems and component design
- Coordination with architects, interior designers, other engineering consultants, and contractors
- Creation of detailed requirements based on interviews with owners and owner representatives
- Transfer of creative or aesthetic ideas into bid specifications for contractors and integrators
- Evaluation of bid responses and company credentials
- Review of detailed shop drawings
- Daily or periodic trips to the field to review construction and installation progress as well as to resolve problems (frequency of trips is chosen by the client)
- Review of training and documentation materials
- Preliminary and final system functionality verification

## **Product Design**

- Creation of detailed requirements based on interviews with inventors, marketers, and potential customers
- Creation of 3D and 2D drawings, scale models, mock-ups, and software simulation, as required
- Prototype evaluation and cost optimization
- Products include low to medium volume electrical appliances, electromechanical systems and consumer items

## **Audio-Video, Controls and Networking Systems Design**

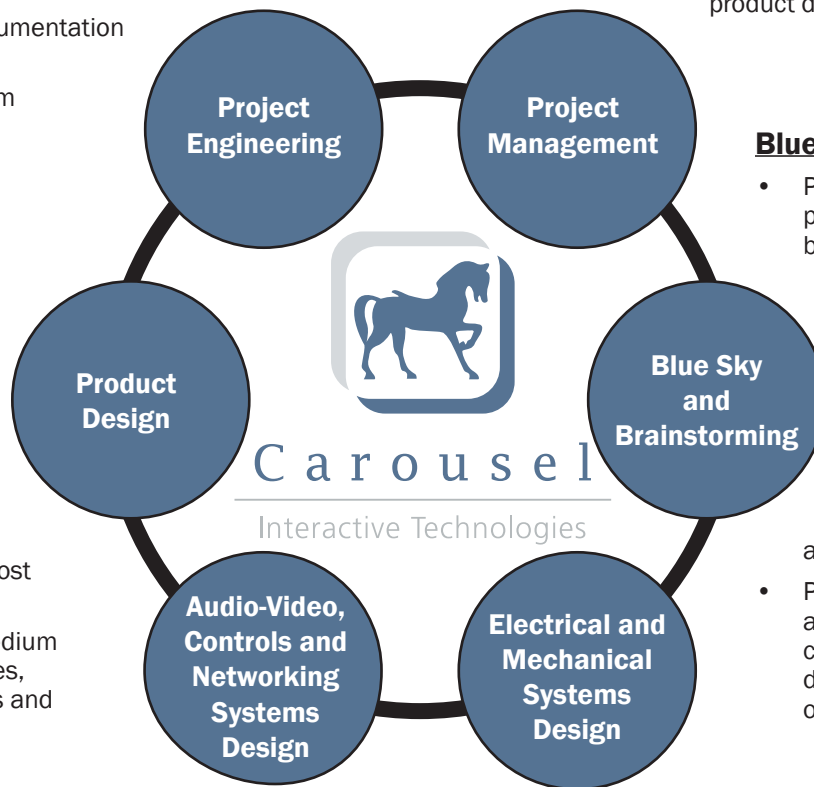
- Project engineering as listed above
- Design of sound reinforcement, broadcast, and building-wide distribution systems
- Design of video projection, complex displays, broadcast, and video telephony systems
- Design of data networking systems and infrastructure for corporate campuses, lights-out data centers, and office towers
- Design of control systems for audio-video systems, entertainment attractions, complex user interfaces, remote monitoring, and diagnostics
- Design of standard definition and high definition video playback and distribution systems, stereoscopic video presentation, and virtual or augmented reality systems

## **Project Management**

- Creation of budget and schedule for projects based on project requirements
- Provide assistance with requirements or project scope reductions to meet desired budget or schedule, if required
- Generation of schedule milestones and identification of major interdependencies
- Negotiation with multiple subcontractors over scope overlap or scope gap
- Status reporting between subcontractors and owner or primary client
- Business case studies and Return On Investment (ROI) calculations for attractions, pay-per-visit experiences, and product development

## **Blue Sky and Brainstorming**

- Participation or leadership of project brainstorming sessions, blue sky exercises, and design charrettes
  - Subject matter expertise in various technologies including audio, video, controls, robotics, user interfaces, electromechanical systems, telephony, data networking, wireless communications, and software design
- Provide technology alternatives and trade-offs in real-time during collaboration with creative designers, architects, and owners on possible user experiences



## **Electrical and Mechanical Systems Design**

- Project engineering as listed above
- Design of ride systems, animatronic props and characters, robotic systems for manufacturing, hoists and mechanisms for automated scenery and lighting systems
- Design of electrical control for mechanical systems, motor control, user interfaces, and safety systems
- Determination of construction alternatives for manufacturability, maintainability, and proper subcontractor division of responsibilities

# ...Technical Solutions

## Sample Projects – Michael Haimson

Project Engineer / Project Manager / Systems Architect  
Product Manager / Systems Engineer / Engineering Manager

*Audio, Video, Controls, Networking, Telephony, User Interfaces,  
Ride Systems, Animatronics, Broadcast, Theater, Satellite, Wireless,  
Product Development, Business Development*



**Carousel**

Interactive Technologies



**Stanford Medical School Surgical Simulation Center – Palo Alto, CA**



**Stanford Medical School Radiology Learning Center - Palo Alto, CA**



**Disneyland Tomorrowland Innoventions Attraction – Anaheim, CA**





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**Carousel**

Interactive Technologies



**Sony Metreon Wild Things (left) & Air Tight Garage (right) Attractions – San Francisco, CA**



**Iwerks Virtual Adventures 3D Interactive Attraction – Norfolk, VA**



**Bur Juman Shopping Mall, Office Tower, and Apartments – Dubai, UAE**



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Carousel

Interactive Technologies



**Intel Network Operations Center, Web Hosting, and Audio-Video Streaming Data Center –  
Winnersh Triangle, Wokingham, UK**



**Billionaire Private Estate – Northern California  
(additional details confidential)**



**Billionaire Private Residence Tower and Banqueting Facility – Western India  
(additional details confidential)**



## Sample Projects – Michael Haimson

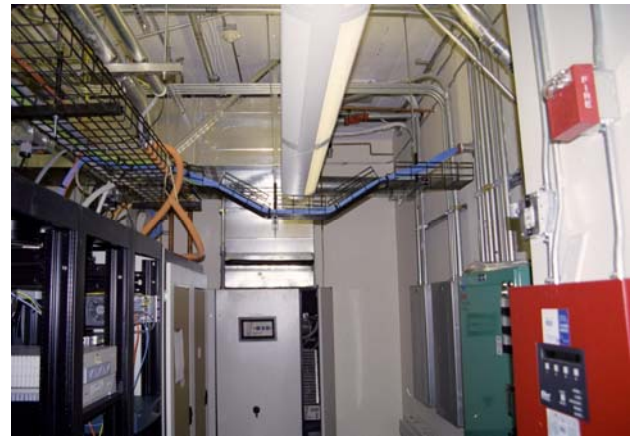
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**Carousel**

Interactive Technologies



**Ten.net & Pogo.com Corporate Offices and Data Center – San Francisco, CA  
 (Now part of Electronic Arts)**



**Shark Rack: Product Development of Active Cooling Systems and Rack Mounting Adapters**



**Workspace Safes: Product Development of Personal Electronics Security Enclosures**

# Michael Haimson



Carousel  
Interactive Technologies

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## OBJECTIVE

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Senior-level systems engineer/architect, senior project engineer/manager, product manager, engineering manager or new business developer for commercial construction projects and consumer/business products.

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## SUMMARY

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- High-energy, quick thinker – has the breadth of experience to see the big picture yet has the skill sets to work at an in-depth level
- Twenty years experience working on systems engineering, systems architecture and product development
- Experience as product manager and new business development manager
- Development of business plans, pro formas and project feasibility studies
- Frequent participation in blue sky, brainstorming, storyboarding and design charrette collaborations
- In-field construction management for commercial building-wide and campus-wide projects
- Experience working on projects in the United States, Europe, Asia and the Middle East
- Experience as designer for consumer and business electronic products and systems
- Comfortable collaborating as part of a team or directing the work of others
- System experience includes:

- audio / video / control system design
- telecommunications
- business plans and feasibility studies
- streaming multimedia
- robotic and animatronic systems
- internet data centers

- themed attraction technology
- broadcast audio and video
- attraction throughput analysis
- wireless communications
- interactive multimedia
- consumer electronics

- custom software for user interfaces
- local and wide area networks
- high-level project cost estimations
- satellite and cable television delivery
- virtual reality and high-end graphics
- high-volume manufacturing

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## EXPERIENCE

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*Carousel Interactive Technologies, San Jose, CA*

**Owner and Principal Consultant, 1995-present**

- Provide consulting services for systems design of audio, video, telephone, data network and satellite television systems for commercial buildings
- Provide contract product management and project management for complex electronic systems and products
- Development business plans for consumer and business products as well as large public attractions and shopping facilities
- Serve as construction manager for systems integration companies on large building projects
- Write system-level specifications and manage tender bidding process
- Design internet data centers and web hosting / streaming facilities
- Serve as client representative for building technology specification and architectural liaison
- Provide design services for consumer and business electronic products
- Provide technical design and management expertise to support themed entertainment systems and public attractions
- Manage custom software development for graphical user interfaces and web-based control systems

**Key Projects:**

Billionaire Private Residence Tower and Banqueting Facility – Western India

(Subconsultant to HMA Consulting, ongoing)

- Part of low-voltage design team for the entire project (audio, video, security, access control, networking, telephone, television, building management systems, entertainment, and theater systems)
- Specialist for entertainment systems, interactive displays and systems, mixed media and large displays, networked media delivery, satellite television delivery and lighting control
- Participate in customer brainstorming sessions and develop concept and construction drawings

WorkspaceSafes.com

(Partner with Mac Cal and 55 Consultants, ongoing)

- Participate in the design the mechanical products for use with personal electronics devices
- Design and prototype electrical systems and subassemblies including a new line of biometrics
- Develop owner's manuals for products and contribute to marketing communications strategy

Stanford University Surgical Simulation Lab, Stanford, California

(Subcontractor to David Carroll Associates)

- Managed the process to identify the user requirements from the doctors and surgeons for the overall facility
- Modified the system design to support surgical mannequins, stereoscopic graphical imaging, multiple channel video recording, and haptic surgery trainers
- Worked with Stryker Endoscopy to design a system interface with their Operating Room equipment and the custom audio-video equipment in the Simulation Lab

Stanford University Radiology Interactive Classroom, Stanford, California

(Subcontractor to David Carroll Associates)

- Worked as Senior Project Engineer on the design and installation of interactive classroom for the Radiology Department containing three hi-resolution projectors (instructor screens) and five plasma displays (student workgroups)
- Managed design of Graphical User Interface requirements and software programming involving custom software and customized hardware
- Provided user training to faculty and staff

Bur Juman Shopping Center Expansion, Dubai, United Arab Emirates

(Subconsultant to Shen Milsom & Wilke)

- Managed low-voltage design team for audio, video, telephone, data network, satellite television systems for two million square feet mixed use retail, office, hotel and apartment project
- Designed key components of all systems and coauthored system specifications
- Interviewed integrators in Dubai and helped select winning tender respondent
- Reviewed shop drawings and construction progress in Dubai during several trips and helped train operations team

Singapore Supreme Court New Building, Singapore

(Subconsultant to Shen Milsom & Wilke)

- Designed streaming media system to record court trials from multiple cameras and microphones
- Wrote specifications for software system to allow users to review the trial footage and provide text transcription services and link the text to the audio-video feeds
- Designed infrastructure required to install equipment in the new building

Private residence for Billionaire, Northern California

(Subcontractor to MCSi)

- Managed the construction progress in the field and commissioned the satellite system
- Designed hybrid fiber-coax satellite master antenna television system for small campus of buildings
- Assisted with the design of the distributed audio and video systems throughout the complex

Intel Streaming Media Data Center, Portland Oregon & Winnersh, UK

(Subcontractor to MCSi)

- Designed the systems and infrastructure to support web-based audio-video encoders in a broadcast studio and web hosting facility
- Performed lab evaluation of several brands of hardware encoders that utilize digital video (SDI) and digital audio (AES) interfaces with Windows Media and Real Networks software codecs
- Coordinated with Microsoft Corporation to help locate several bugs found in Windows Media Encoder

Pogo.com (Electronic Arts) Online Game Data Center, San Francisco, California

(Direct consultant)

- Designed the local and wide area network infrastructure and the facilities equipment for two data centers and the corporate office building
- Managed the construction in the field and served as the client technology liaison to the general contractor and the building architect
- Managed the bid process for the structured wiring contractor

Sony Metreon Mall and Entertainment Center, San Francisco, California

(Direct employee, Sony Development)

- Served as Senior Project Engineer responsible for all the attractions
- Managed the design, construction and installation of the audio, video, show control and ride control systems
- Designed the high-level and low-level technical systems based on artistic meetings with the show creative team
- Wrote scope documents and awarded contracts to various systems' integrators involved in the project

Disneyland Tomorrowland Renovation, Anaheim, California

(Subcontractor to Richanbach and Associates)

- Served as technology project manager for large interactive pavilion, "Innoventions"
- Worked as systems engineer with Walt Disney Imagineering for show control, computer systems, media delivery systems, telecommunications, data networking, and electric power
- Divided creative design into biddable packages including scope, schedule and budget.
- Selected vendors, awarded contracts, and managed construction/integration in the field

Total Entertainment Network Online Game Data Center, San Francisco, California

(Direct consultant)

- Managed the system design and installation of a large computer data center that supports a multi-player game service over the Internet
- Served as overall hardware system architect and facilities designer
- Coordinated the installation of two OC-3 fiber optic connections to the Internet
- Configured Sun Microsystems servers and Cisco routers.



Shark Rack Custom Rack Mount Solutions, Sunnyvale, California

(Cofounder and inventor)

- Raised money to support new product line idea
- Designed eight products that provide supplemental cooling and rack mounting for Sun Microsystems computer equipment
- Patented aesthetic design for large server rack mount system, patent # D428,892
- Managed construction of prototypes and initial production units throughout metal fabrication, finishing, wiring and packaging

Netscape, Inc. Web Site Testing and Validation, Mountain View, California

(Direct contract)

- Co-founded company "WebChecked.com" to provide web site validation and testing
- Tested Java, JavaScript and basic HTML software against various Netscape browser versions and Windows, Macintosh, Sun Solaris and Silicon Graphics Irix operating systems
- Analyzed TCP and UDP connection performance through four different firewall products

Custom Web Page Design and Hosting

(Various clients)

- Designed, created, and managed Internet web sites using HTML, Java, JavaScript, Shockwave, C and integration with various database systems
- Provided hosting services on Silicon Graphics and Sun Microsystems servers

*Tabard Theater, San Jose, CA*

**Cochair of the Board, Volunteer Member, 2002-present**

- Co-lead Board of Directors, providing strategic vision and tactical plans for the nonprofit theater group
- Assist with set design and technology support for shows, providing training to other volunteers
- Occasionally perform on stage in various dramatic and comedic roles

*Silicon Graphics, Inc., Silicon Studio, Mountain View, CA*

**Manager, Strategy and Business Development, Location Based Entertainment, 11/94 to 3/95**

- Developed new business model for Location Based Entertainment systems using interchangeable software on standard systems with common open interfaces
- Planned and coordinated industry-wide summit on how to make the LBE market succeed
- Worked with facility operators, content creators and software tool developers to understand their unique requirements for the SGI-based real-time graphics entertainment industry

*Iwerks Entertainment, Burbank, CA*

**Product Manager for Interactive Attractions and Senior Systems Engineer, 7/93 to 11/94**

- Managed design, development and product roll-out of Virtual Adventures: the world's first high-throughput virtual reality attraction
- Helped position the company for a successful Initial Public Offering (IPO) On October 19, 1993
- Wrote system requirements, co-developed system architecture, analyzed market demand, trained sales staff and managed system construction and installation into initial customer facility
- Developed business plan for new interactive product line focused at high-tech family entertainment
- Served as company's interactive expert and spokesperson at international conferences and seminars

*AT&T Bell Laboratories, Indianapolis, IN*

**Member of Technical Staff - Team Leader, 1/92 to 6/93**

- Managed small team of engineers and business development personnel
- Designed prototypes of new consumer products and services that utilize voice and speaker recognition, video telephony, touch-screen appliances, interactive television and wireless personal communications
- Assisted with design for nationwide video telephone service utilizing CATV system and set top boxes

*AT&T Bell Laboratories, Naperville, IL*

**Member of Technical Staff, 5/85 to 12/91**

- Led 50-person team which defined the architecture and design parameters of a new line unit for analog and digital (ISDN) lines for united states and international markets
- Developed architecture for new system to use wireless in-building “private cell sites” for voice communications in a typical office building
- Managed architecture team that provided a high-speed optical interface (SONET) to the 5ESS-2000 telephone switching system
- Served as member of core architecture team for the 5ESS-2000 telephone switching system
- Designed new line interface hardware to solve an audible click problem with Taiwanese coin phones and demonstrated the solution for the customer in Taiwan
- Received “One Year On Campus” fellowship to pay for fulltime master’s degree in electrical engineering

*General Dynamics, Fort Worth, TX*

**Electrical Engineering Intern, Summer 1983**

- Created and taught a course covering use of a new Cincinnati Milacron 776 industrial robot
- Designed robot end-effector for use in the course
- Wrote the electrical section in an Air Force manual on a robotic positioning device

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## EDUCATION

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MSEE, Oklahoma State University, 8/86, GPA = 3.8/4.0

Thesis Project #1: Creation of new course, “Practical Engineering Design” (now a required class)

Thesis Project #2: Design of four-legged walking and talking robot named Pegasus

BSEE, Oklahoma State University, 12/84, GPA = 3.7/4.0

*Updated 28 November 2007*