

# Tim Howe

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and worldwide

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## SELECTED SKILLS

- ◇ Medical software and devices, consumer-facing health & wellness application development
- ◇ Project management, estimation, specifications, test coverage, regulatory compliance
- ◇ Common Lisp, Clojure, Java, Python, C++, C, several assembly languages
- ◇ Hardware and process control, real-time computing, multimodal interaction

## WORK EXPERIENCE

- ◇ **3Derm Systems** (June 2015 – present)
  - Director of Systems Engineering: June 2016 – present.
  - Senior Software Engineer: June 2015 – June 2016.
    - Regularization of systems engineering and software development practices
      - Introduced system requirements management and use of recognized lifecycle processes
      - Established specifications for hardware components and deployment configurations
      - Developed and achieved consensus on regular system release cycle and workflow
      - Instituted and serve as chairman of change control board
    - Product development
      - Built and maintain processes and software to manage technical operations lifecycle
      - Created deployment and operations tooling for multiple instances of service on AWS
      - Project manager and lead developer of skin condition viewer for Android VR headsets
      - Responsible for design and development of EMR integration functionality
      - Developing other confidential user-facing technologies for future product versions
    - Project/risk/compliance management
      - Led HIPAA compliance effort in preparation for production launch
      - Created configuration management, risk management, quality assurance, project management, and transition plans following ISO/IEC/IEEE recommendations
      - Systematized project sizing and estimation using IFPUG FPA and SNAP sizing
      - Introduced IMP/IMS techniques for staged program deliverables
- ◇ **Quadium Technology** (August 2006 – present)
  - Principal. Highlighted client projects include:
    - Fitness tracking desktop/tablet/phone application with adaptive workout generation
    - COPPA-compliant mobile Web family geolocation system
    - HIPAA-compliant SMS broker for health coaching system
    - Automated SQA frameworks for care team communications system
- ◇ **Roche Diagnostics Hematology** (September 2013 – February 2015)
  - Designed end-to-end consumable inventory-tracking system, system event notification mechanism and wire protocols, checklist/wizard framework, printing pipeline
  - Owner of time synchronization, consumables, and window management functionality
  - Introduced dependency management, API documentation, and automated unit testing
  - Audited full stack for security and data integrity, providing drop-in remediations
  - Validated specifications and test scripts against standards, regulations, and requirements
  - Developed system and lab management protocols and software

- ◇ **PJ Entertainment** (April 2012 – May 2013)
  - Technical cofounder, CTO, and primary developer of mobile action gaming startup
  - Developed Java EE server for distributed multitenant game engines; Java and Objective-C client libraries optimized for parallelism and low overhead; multi-currency accounting system with PostgreSQL and PL/pgSQL
  - Designed anti-cheat mechanisms, gameplay styles, and protocols for high-latency networks
- ◇ **Computer Sciences Corporation** (July 2005 – September 2010)  
Consultant for Sun Microsystems from initial CMM level 3 effort through Oracle transition.
  - Centralized packaging variants: harmonized requirements, instituted regular release cycles
  - Built private cloud using Solaris zones and ZFS and instituted lab protocols for testing
  - Wrote internal software including network managers, configuration IDEs, SCM tooling
  - Led major migration efforts for complex application suites on heterogeneous platforms
  - Managed SCM services, including VCS administration, policy creation, and process audits
- ◇ **Celebrity Resorts** (October 2002 – August 2006)
  - Led Web integration of property management system, interfacing COBOL, Java EE, PHP
  - Designed custom algorithms and built software for executive trend monitoring
  - Managed procurement and rollout of ticketing system for guest and corporate IT requests
  - Built custom call campaign system on short notice, retaining millions of USD in revenue
  - Wrote gift shop management software to track inventory, cash flow, audits, orders, shrink
  - Wrote interim property management system providing seamless vendor cutover
  - Developed various tools for sales, HR, and customer service
  - Managed servers and services for ongoing technical operations
- ◇ **Office Depot** (August 2001 – July 2002)
  - Developed handheld software for pricing, labeling, stocking, audits
  - Increased speed and accuracy of relabeling on retail floor with new tools and workflows
  - Revamped stocking workflow using handheld software and automated index printouts
- ◇ **Wego Systems** (July 2000 – May 2001)
  - Implementation and documentation of new features and product enhancements
  - Lead maintainer of production code branch: bug fixes and feature backports
  - Configured and packaged server platform to be used for hosted clients
  - Managed demo server and client kiosk for trade shows
- ◇ **Sun Microsystems** (June 1999 – July 2000): Development and packaging; Y2K audits
  - Design and implementation improvements for client-side distribution software
  - Wrote software for testing, lab management, release management
  - Packaged vendor software for internal distribution on multiple platforms
  - Provided training, system integration, and support for coworkers

RESEARCH  
INTERESTS

- ◇ Automation of human-in-the-loop healthcare workflows; expert critic systems
- ◇ Memoization of dynamic content; dynamic resource allocation
- ◇ Integration of technology into project management and process automation

CONTINUING  
EDUCATION

- ◇ **David Group** “Applying Function Points to Emerging Business Technologies” (ISMA 10)
- ◇ **Betaspring** Participated in Summer 2011 accelerator program as CTO of Conversation Media
- ◇ **Rescue Training** Obtained national and Florida EMT-B certification (currently inactive)
- ◇ **Paulk Consulting** Software process management class in conjunction with 14th ICSQ

MEMBERSHIPS

- ◇ ACM SIGSOFT; IFPUG; USENIX LISA; ASQ Software; CISQ