

# Ayal Spitz

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## Education

*MS Engineering Management*  
The Gordon Institute, Tufts University  
Medford MA, 8/08

*Marketing and Advertising Strategies*  
Academy of Art University  
San Francisco CA, 12/05

*Introduction to Advertising*  
Academy of Art University  
San Francisco CA, 8/05

*Executive Education Program in Innovation*  
MIT, Cambridge MA, 7/04

*Certificate Program in Cryptography*  
MIT, Cambridge MA, 7/99

*MA Computer Science*  
Brandeis University, Waltham MA, 5/97  
Masters Research Project: Digital Rights Management

*BA Computer Science*  
Brandeis University, Waltham MA, 5/96  
Honors Research Project: Fractal Memory Model

## Languages

Java, Objective-C/C#/C++/C, Ruby & Ruby on Rails, Perl, Active Server Pages, HTML, JavaScript, ActiveScript, Visual Basic

## Technologies

Mobile Computing, Virtualization, SOA, SOAP, XML, Jini, JavaSpaces, Cryptography

## Systems

Windows, Mac OS 9/X, Linux, iPhone, BlackBerry, Palm, Android

## Awards

12 Recognition awards from MITRE, the US Air Force, and the US Census Bureau

## Affiliations and Interests

Regular participant of the MIT Entrepreneur's Forum

Interested in Furniture Design and Construction, Computer Graphics: 3D, Fractal Compression, and Graphics User Interface, Fine Food and World Travel

## Qualifications Summary

15+ years experience in mobile computing, distributed software, emerging technologies, and technology fusion; interested in leading a team bringing cutting edge technologies to market.

## Professional Experience

### Senior Software Engineer, PatientKeeper, Waltham MA, 4/12 - Present

- Leading the development of the Computerized Physician Order Entry (CPOE) Order Sets component of the PatientKeeper iOS Application, including supporting backend services. Responsibilities include:
  - Work with stakeholders to define functionality, a development schedule, and resource allocation.
  - Define and implement the underlying architecture.
  - Design the user interface and user experience.
  - Manage development resources.
- **Technologies:** Objective-C, iOS, Java, SQLite/SQLCipher, Git, JIRA, Confluence, Jenkins.

### Lead Software Engineer, MITRE Corporation, Bedford MA, 1/01–4/12

#### + SELECT PROJECTS

- Mobile computing champion.
  - Technical Lead & Developer, responsible for managing a distributed team, transforming a prototype USA Army unmanned vehicle control iPhone application into a production product.
  - Project Lead, Ubiquitous Mobile Computing research. Responsibilities included: proposal & funding development, five-developer team management, and customer management.
  - Mobile computing advocate to the Department of Defense. Responsibilities included: developing and demonstrating example iPhone, Android, and BlackBerry applications as well as giving regular presentations to executive staff.
  - Contributed iPhone source code to the public domain via open source.
- Ubiquitous mobile computing research lead. Responsibilities included: project definition, funding, project planning/milestone definition, team management, and customer relations.
- Co-Principal investigator researching virtual machine shared memory. Responsibilities included: managing relationships with other portfolio research projects, Linux kernel code development, and prototype testing.
- Led a five-developer team exploring the application of virtualization to the Air Force. Responsibilities included: project definition, scheduling, presentations, and demonstrations to executive staff.
- Advocated for the use of Service Oriented Architecture in the Air Force.
  - Led a multi-year \$15 million congressional plus up program focused on introducing Service Oriented Architecture into both the Joint STARS and AWACS fleet of aircraft.
  - Led a \$300k risk reduction effort to integrate web services into Joint STARS. Responsibilities included: defining project goals, setting the project schedule, communicating regularly with stakeholders, and managing multiple contractors. Effort resulted in a further investment of \$2M by the contractor in the technology.
  - Regularly pursued funding of web service integration into Joint STARS. Responsibilities included: presentations to executive staff, development of cost estimates, and writing funding proposals.
  - Competed for and won a MITRE prototyping grant to investigate the mashing up of Instant Messaging and RSS (InstantRSS) in the context of Service Oriented Architecture.
  - Led the effort to add web services to the Air Force's Theater Battle Management Core Systems including the deployment of a developer support website.
- Key contributor to next-generation computing architecture for the Joint STARS fleet. Responsibilities included: technical oversight of contractor studies of architectures, networking, communications, risk reduction efforts, and prototyping tasks.

- Investigated the use of Linux as an abstraction layer for hardware, leading to the expanded use of Linux in military applications.
- Led a small focused team of developers in the modification and deployment of SourceForge to support collaborative development between MITRE, the Air Force, and Air Force contractors.
- Architected and developed a community portal site for the Air Force, resulting in the sale of the portal application to a military contractor and a MITRE Presidential award.
- **Technologies:** Objective-C, Mobile Computing, Virtualization, SOA, Java, XML/XSLT/XPath/SOAP, Perl, Ruby, C#, ESB.

**Senior Software Engineer & Manager, PersonalGenie Corporation, Carmel CA, 1/00–1/01**

- Resource manager for three developers working on the PersonalGenie recommendation service engine. Responsibilities included: conducting regular status meetings, and advocating on behalf of the developers.
- Developed and deployed the first commercially viable implementation Jini Lookup Service.
- Developed a distributed time/task management system which was used by the physically distributed staff of PersonalGenie, resulting in improved task management and task priority traceability.
- **Technologies:** Jini, JavaSpaces, Java, Cryptography, LDAP directory services, XML, and XQL.

**Software Engineer, MITRE Corporation, Bedford MA, 5/97–1/00**

- Jini technology Advocate.
  - Led the exploration and application of Sun Microsystems Jini technology to military problems, resulting in higher visibility of Jini technologies within MITRE and the military community.
  - Liaison to Sun Microsystems, responsible for expressing military needs and concerns regarding Jini and influencing alterations to the Jini technologies.
- Promoted the use of commercial off the shelf technology.
  - Researched, prototyped, and transitioned specialized Air Force Weather Systems to commercial, off the shelf, laptops and net centric software such as Microsoft NetMeeting.
  - Demonstrated net centric capabilities to MITRE board of directors from Saudi Arabia.
  - Won two MITRE awards for a highly successful project.
- **Technologies:** Java, Jini, Perl, XML, Active Server Pages, JavaScript, HTML.

**Programmer & Web Weaver, Linguistics Dept., Brandeis University, Waltham MA, 8/96–5/97**

- Developed a C++ based educational application to graph grammar trees.

**Programmer, Snap Software, Hollis NH, 5/96–8/96**

- Re-architected and implemented a DOS/Text based medical application to a Windows/GUI based application.

**Technical Support Specialist, MarketPlace Information Corporation, Waltham MA, and GCC Technologies, Bedford MA, 1/93–8/94**

- Provided customer technical support.