

# Jeff Gelbard

Software Developer, Technology Designer, Entrepreneur

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## Personal Profile

I am a seasoned entrepreneur who has developed products still in use worldwide decades after their introduction. I am always seeking the right niche where my extensive experience with technology spanning Web, Database, Cloud, CRM/CMS, Python, Linux, Embedded and Real-time systems can be leveraged to create success. Current projects in Africa and other parts of the developing world have influenced sea change in their sectors

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## Work Experience

### Software Developer / Project Manager

Partners In Hope Hospita - Lilongwe, Malawi  
3rdline ART application review system for Malawi

2017 - Present

- Lead Engineer for Web based system to manage the application review and Genotyping process for patients whose ART treatment is failing
- Worked with team to improve the initial design, add features such as data privacy and security, and to deploy. Currently in ramp-up for widespread use

### Senior Technical Liaison / Lead Engineer

SystemOne Inc.  
In-country project assessment for national e-health deployment in Malawi

2016 - 2017

- Lead Engineer for solar powered, cellular connected, computer workstation for HIV/VL results reporting responsible for overall design, engineering, system software design and development and integration to be piloted in Malawi and then deployed in 700+ sites country-wide
- In-country technical liaison between SystemOne, Partners in Hope, Ministry of Health officials and e-healthcare NGOs and Telecom entities - developed partnerships and cooperation between all stakeholders for project success
- In-country logistics, operations, deployment, testing and monitoring of systems involved, responsible for securing all hardware and ensuring sustainable operation of systems

### Consultant

Techspring at Baystate Health – Springfield, MA

2015 - 2017

- System architecture and software design and development of a resident and visitor checkin system for a Healthcare Technology incubator.
- Responsible for all components of system, consisting of a Raspberry-Pi (small embedded computer), RFID tag reader, label printer, ipad tablets, a cloud-based server, running a MySQL database as a back-end and Nationbuilder, a cloud service for member registration and contact management

- Coding involved customizing operating environment of Raspberry-Pi, python scripts and Javascript Web application, as well as database schema design and implementation, syncing
- Liaison between Techspring staff, Web design consultants and network administration contractors.

## Software Consultant

PeopleHedge – Boston, MA

2015

- Coding work for a foreign exchange technology startup
- Python work on interface utilizing the Django Framework
- Coverted analytical algorithms from R to Python

## Senior Software Developer

Starfish Storage

2015 - 2016

- Software design and development of a large scale (petabyte) document cataloging and management tools involving filesystem crawling and metadata extraction utilizing high performance NOSQL database
- Responsibilities included coding of Python scripts for categorization of documents and extraction and integration of metadata into the catalog
- Technical liaison between Starfish and Library of Congress for a pilot deployment and evaluation of the system – interfaced with customer tech staff, management, and offshore (Poland) software outsourcing contractors

## Director of Software and Technology

ECS Inc.

2009 - 2013

Project management of a small development team

- Maintained and enhanced legacy Microsoft .NET applications
- Extended computational “reach” of organization by integrating Linux and Python along with introducing both PHP Web CMS (Typolight), and Salesforce into legacy systems
- Built numerous web service connectors utilizing Python to facilitate data interchange between Gmail, Google Maps, Salesforce, MSSql/MySQL, Deltek Vision(corporate accounting) and legacy .Net
- Helped to improve best practices and key employee satisfaction

## Founder/CEO Bytespin, Inc

Eyecuity

2003 - present

- Developed Eyecuity, an embedded Linux wireless digital testing device and patient education platform for eye physicians
- Responsible for all design, both hardware and software including the productization of the hardware, software implementation - Python/Linux
- Managed its FCC testing, packaging, marketing collateral including logo, sell sheet and web sites
- Created enabling “soft” hardware technology to deliver a complete, secure digital environment on a USB key/SD card that runs on a wide array of computer hardware

## Founder/Inductivecap, LLC

Real-time Foreign Exchange Trading System

2008 - 2011

- Developed a real-time, foreign exchange trading system
- System utilizes real-time currency data to track price fluctuations to determine optimum opportunities to buy and sell
- AJAX Web interfaces to both public and back end functionality
- Built in Python with extensive, database driven (Postgres), automated, analysis and modelling tools
- System design features multiple redundancies and telephony signaling features (messaging and IVR) for maximizing uptime
- Graphing and other visualization tools utilizing Pyjamas (Python-HTML5)

## Aves Project, INPA, Manaus, Brazil

Bird Mapping / Data Collection in central Amazon

2010 - present

- Developed a Python GTK based interface to capture 5 years of observation data and align it with a global database
- System creates Google Earth visualization of bird species
- Created variant to capture new data in the field using tablets or smartphones
- Code modified to be web based, using HTML5

## Founder/Wordbox, Inc.

Collaborative Web-based Translation

2001 - 2003

- Developed first real-time, collaborative web translation system. Licensed by Disney Interactive before their restructuring.
- System allowed independent translators worldwide to collaborate on a single body of work in multiple languages concurrently
- Included tools for creating and maintaining a common glossary for enhanced consistency in the final result. Fully supported Unicode and shift-JIS for Kanji/Katakana output (Japanese)
- Original Coldfusion interface refactored into Python Webware

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## Key Skills

### Python Language

Have been coding in Python extensively for the past 18 years. Built entire systems, backends, desktop and web frontends, data interchange utilities, object relational database tools and web frameworks

### Linux and Embedded Linux

35+ years. Developed some key internals at Bell Labs in the '80s. Embedded 18+ yrs

### C/C++ Language

25+ years experience – servers, email processing, natural language processing and filtering

### PHP

Web mapping, geospatial skills and services tracking system, mealsite tracking, response center, language translation, email filtering

### Database

MSSql, PostgresQL, MySQL, SQLite, MongoDB, SOQL (Salesforce) and more

### Cloud

Amazon EC2, Google API, Salesforce, APEX, SugarCRM

### Web

HTML, Javascript/Ajax, Node, CSS, JQuery, Mootools, HTML5

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## Education

### Princeton University

*BSE Electrical Engineering and Computer Science*

GPA 3.5. Senior Thesis: Design of a Real-time Digital Signal Processor for Speech and Audio Codec applications

### Princeton University

*MSE Electrical Engineering and Computer Science*

Course work (incomplete) towards MSE while at Bell Laboratories 1980 - 1986