

# Costa Shapiro

is **engineering software** since the early 90's:

- Lifelong passion → learning and creating
- Academic background → research and development
- Rich experience → intuition and pragmatism
- Product vision → business and strategy
- Process specialty → mentoring and leadership

## Synopsis

- The first **owned and paid** project while still in high school (an educational robot program)
- A total of 10 years of formal **computer science** education – from the high school up to the graduate school (Technion)
- Part-time/full-time, office/remote, hourly/salary, team member/coordinator/leader, hands-on/consulting/mentoring/supervising, OS/IP, all project scales + all company sizes, many areas of SW and HW – **done** (25+ years)
- With the **Internet** since its early days to the present day – from the bottom up (whole stack)
- Interested in owning and developing robust **new** technologies/systems/applications per specific business requirements (pragmatic agile ways)
- Also available for consulting on anything IT-related, from architecture – through 3<sup>rd</sup> party technologies – to UX (quite friendly)

## Currently Relevant Technologies

**Ruby** world – my current general-purpose/business-logic language of choice – and everything around it

**Java** world – the language of my Master work – and the gateway into the mighty JVM with everything around it

ECMAScript (aka **JavaScript**) world – the web scripting language with everything around it (from **HTML5** APIs to bleeding-edge frameworks) – which is also useful for some microservices

**SQL** world – still the default DBMS model/language – with its continually advancing technologies and tools

**NoSQL** world – notably including search and pub/sub systems – good for optimising data access ad hoc

**Docker**, Kubernetes and friends (SW production/deployment), Python and ML friends, Erlang and friends, FFmpeg and friends (**A/V** processing), various **RFCs**-based technologies, **Git** and friends, etc

## Historical Experienced Technologies

C/C++ world – Boost, Tuxedo, MFC, OWL, VxWorks, Tornado, ACE, Turbo Vision

Backbone+Marionette (JS), Apache Cordova (PhoneGap), Web browser extensions

bash, ksh, PHP, Perl, Tcl/Tk, Visual Basic, Pascal, COBOL

MS Access, Paradox/BDE, dBase, Clipper

CORBA, DCOM/ActiveX

Various Apache Jakarta technologies, JavaCC

Win32 userland, FreeBSD-based internet server setup, DOS

# Studies

- 1999-2003      [Technion \(CSD\)](#) - M.Sc. in Computer Science (cum laude)  
                    [“Object-Oriented Implementation of Reconciliations”](#) (Reconciliations in Java)  
                    thesis
- 1995-1998      [Technion \(CSD\)](#) - B.A. in Computer Science (cum laude)
- 1991-1994      [BOSMAT](#) (Automatic Data Processing course) - Speciality Matriculation Certificate

# Jobs

- 2017-2019      Server Team Leader / Chief Security Officer, and then, CTO at [Owlytics Healthcare](#)  
                    System back-end development & maintenance, including of large-data-volume  
                    analytical components  
                    Information security compliance planning & supervision  
                    Data ingestion / stream processing system architecture and execution  
                    Wearable sensor data ML research for healthcare  
                    Full data ingest+analysis+report production system ownership  
                    - Docker, Kubernetes and related technologies (on GCE, AWS); Ruby technologies  
                    for admin components, system tests, etc; Python technologies for data analysis;  
                    Apache technologies, such as Kafka and Lucene (Elastic stack); other NoSQL  
                    technologies, Elixir (Erlang VM)
- 2016-2016      Core Developer at [Peer5](#) (core product team)  
                    Web (client-side) video P2P delivery plug-in system maintenance  
                    Trying to stabilise and extend the niche product technology  
                    - Docker technologies, NodeJS, HTML5 APIs, web video players APIs
- 2016-2016      Lead Developer at [Codefresh](#) (core product team)  
                    Docker-based full (push-build-test-promote-launch) containerisation workflow  
                    as-a-service maintenance  
                    Development of an RSpec-based Docker composition testing framework  
                    - Docker technologies, NodeJS, Ruby
- 2015-2016      Software Architect at [Showbox](#) (video processing and data management back-end  
                    system)  
                    video editing and delivery workflow back end ownership, video montage engine  
                    development  
                    - Ruby on Rails, FFmpeg and similar technologies, Redis, multi-process multi-  
                    service high-speed processing architecture

2011-2014	<p>Project Lead, Core Developer and Consultant at <a href="#">Astrails</a> (various web/mobile app projects)</p> <p>technology expertise, architecture and interface design, wireframing, prototyping, requirements specification, production implementation, engineering support and management of web+mobile app projects</p> <ul style="list-style-type: none"> <li>- Ruby on Rails, Backbone+Marionette, NodeJS, RSpec, and a great deal of other contemporary client- and server- side technologies</li> </ul>
2010-present	<p>Developing and participating in a number of independent/open-source projects</p> <ul style="list-style-type: none"> <li>- Ruby on Rails, JavaScript, Sinatra, RSpec, Cucumber, etc</li> </ul>
2009-2010	<p>Senior Software Engineer at <a href="#">RSA</a> (Verified by Visa / MasterCard SecureCode project, Herzliya)</p> <p>production and development maintenance of the technologically complicated SAAS product family</p> <ul style="list-style-type: none"> <li>- Java EE, C++/Boost/Tuxedo, ORACLE SQL, Python, bash, ksh, Tcl/Tk &amp; other scripting</li> </ul>
2007-2009	<p>Senior Software Engineer at <a href="#">Nielsen Online</a> (projects on interactive distributed systems for large-volume text-mining analysis, Herzliya)</p> <p>full ownership of the company's core Consumer-Generated Media analysis project</p> <p>solving stability, maintainance and performance issues on component and system levels</p> <ul style="list-style-type: none"> <li>- Java EE &amp; Apache Jakarta technologies (notably incl. Lucene), C++/Boost, SQL &amp; custom DBMS's, XML processing, standard &amp; custom client-server transports, bash &amp; other scripting</li> </ul>
2005-2007	<p>Technological Leader and Founder at a personal information management web service start-up project</p> <p>technology development (interface definitions, system architecture, algorithm and database design, etc)</p> <p>start-up company related activities</p> <ul style="list-style-type: none"> <li>- front-end web technologies, PHP5, Java EE &amp; Apache Jakarta technologies, JDBC, PostgreSQL, FreeBSD, common internet server software</li> </ul>
2002-2004	<p>Senior Software Engineer at <a href="#">Intel</a> (pre-silicon VLSI power estimation tool project, integrated VLSI CAD system, CAD Dept., Haifa)</p> <p>VLSI technology domain experience (including system input/output specifications and real-data analysis)</p> <p>subsystem architecture development</p> <p>internal customer engineering support (VLSI projects)</p> <p>cross-project coordination and developemnt</p> <ul style="list-style-type: none"> <li>- C++, VLSI knowledge, internal infrastructure framework, Tcl/Tk, Perl</li> </ul>

- 2000-2002**      Software / Integration Engineer at [QUALCOMM](#) (several cellular communication related software-hardware projects, Haifa)
- CDMA technology domain experience (both parties plus simulation/testing)
  - full-circle development of a hardware driver framework and applications
  - development, maintenance and refactoring of a distributed testing/simulation infrastructure
  - cell-phone system integration (including development of mid-layer embedded communication software)
  - RT/Embedded systems, VxWorks, Tornado, CORBA, Visual C++, ARM, proprietary DSP, hardware-level protocols (cPCI, flash memory, etc), Win32, Perl
- 1999-2000**      Software Developer (part-time) at [Extent](#) (former, now owned by [Alepo](#)) (Billing & Mgmt. RADIUS ISP web-managed server project, Ramat Gan)
- development of custom management and report software modules
  - cross-platform C++, SQL (various DBMS's), Apache HTTP server, proprietary front-end template framework
- 1998-1999**      Teaching Assistant at [Technion](#) (basic CS courses, [CSD](#), [CEESD](#), Haifa)
- 1997-1998**      Software Developer (part-time) at [NetManage](#) (several internet client projects, Haifa)
- common internet protocols experience (email, ftp, telnet, etc)
  - client software module development (including GUI components)
  - infrastructure works
  - Visual C++, MFC, DCOM/ActiveX, range of internet protocols, Win32, other application technologies
- 1995-1997**      Software Developer (part-time) at the [the Technion's Asher Space Research Institute](#) (TechSat microsatellite project, Haifa)
- design and implementation of complex physical algorithm modules
  - implementation of telemetry-processing modules (including database design and usage)
  - implementation and integration hardware driver modules (GPS, etc)
  - C/C++, x86 assembly, Visual Basic, Paradox/BDE, various hardware interface protocols, Win32 (including GUI)
- 1992-1993**      Software Developer (part-time) at [the Technion's Center for Promotion of Learning and Teaching](#) (A project of robotic manipulator based educational aid for spatial reasoning development course, Haifa)
- design and implementation of robotic manipulator software (including GUI, command language, robot control and simulation)
  - Pascal, Turbo Vision, x86 assembly, proprietary robot interface protocol, DOS