Costa Shapiro - *M.Sc.* in *CS* - Whole Stack Tech Lead - *from home* or *in office*

costa@mouldwarp.com | https://costashapiro.com (links to LinkedIn, CV, blog etc)

Technical leadership and technology ownership responsibilities - 10+ yr.
Software architecture, end-to-end R&D process and IT production - 10+ yr.
Integration, automation, optimisation, communication, security expertise - 10+ yr.
Test-driven and product-driven robust development methodology - 5+ yr.
Parallel and distributed programming, also, decentralised systems - 5+ yr.

Ruby-based full web stack apps (with Rails etc) and system tooling - 10+ yr.
JavaScript-based stack components (with TypeScript, Node, React etc) - 5+ yr.
Python-based (also, R-based) AI / ML / statistical analysis / etc modules - 5+ yr.

SQL-based highly available and consistently performing storage solutions - 10+ yr.
Event-driven systems, based on streaming MQs such as Kafka, NATS etc - 5+ yr.
Kubernetes-based and other container environment deployments - 5+ yr.
Cloud-based big data, media and document "NoSQL" storage management - 5+ yr.

Video and signal processing and delivery (with low and high level code) - 5+ yr.
Java-based monolithic and legacy systems, also, desktop apps - 5+ yr.
C/C++-based real-time and embedded software and firmware - 5+ yr.
Specialised stack components in Erlang / Elixir, Rust, Go, Bash etc - 2+ yr.

- Efficient professional communication and delivery skills
- Fluency with the dev community and business-oriented flexibility
- "Maximising impact while minimising costs" experience
- Work references, portfolio projects readily available on demand

Got the M.Sc. in Computer Science *(cum laude)* from Technion (Israel Institute of Technology) for a Java-based work in parallel computing and distributed software engineering, is still interested in those, and has never stopped learning;
Thoroughly acquired and deliberately employs understanding of not just information technology (hardware & software), but also information theory (models & algorithms) and information-based business (products & services);
Speaks English, Hebrew, Ukrainian and wants to also speak French and Japanese;
Loves many arts and sciences, nature, to ride bicycles, and wants to also ride waves;

Some work experience highlights are on the next page,
and also, selected tech-leadership projects are on the 3rd page.

The tech lead @ small company providing time-series (big data) analytic tools to businesses and institutions : web-based on-premises data-processing system
2024 (current) - in R&D team - developing and maintaining end-to-end: Java, Python

The backend tech lead consultant @ startup company for automotive maintenance management optimisation : web-based vehicle-fleet-sensor-data intelligence service
2021 - in app's backend+infra team - developing microservices: Ruby, Python, SQL, cloud

The server team lead @ "BandManage/Owlytics", startup company for elderly healthcare : multi-client wearable-sensor-data real-time (streaming) physiological intelligence service
2017 - besides servers, also tech lead for data-science and infra-ops teams - developing and integrating architecture and components: Ruby, Python, Elixir, "NoSQL", cloud, K8s

The backend team lead @ "Showbox", startup company for amateur video creation : template-rich multi-source video editing web app service
2015 - in media-processing and app servers team - developing, integrating, maintaining and optimising architecture and components: Ruby, SQL, C, FFmpeg

A leading consultant @ "Astrails", boutique consulting company : multiple startup projects
2011 - in clients' founding teams - planning, developing, end-to-end integrating and operating web and mobile app services: Ruby, SQL, "NoSQL", JavaScript, web tech

A senior software engineer @ RSA, security company : for financial and other enterprises
2010 - in payment backend team - maintaining credit card security system: Java, C++, SQL

An architect @ Nielsen "Buzzmetrics" : customer-generated-media-based market analysis
2007 - in core internal desktop app team - implementing and integrating analytical modules of staff market analysts' "big data" system: Java, C++, SQL, A.Lucene, stats algorithms

A software engineer @ Intel, internal CPU CAD department : power supply and consumption
2003 - in analytical measurement team - developing tools: C++, also, maths and algos

An integration *ware engineer @ Qualcomm, cell department : both-end *DMA projects
2000 - in several chip teams - developing low-level and simulation *ware: C++, x86, ARM

A programmer @ "Extent", ISP software company : proprietary RADIUS system product
1999 - part-time - developing monitor & control "plugins": C++, SQL, Apache httpd, web

A programmer @ NetManage : multiple business PC internet client app products
1997 - during studies - developing parts of app suite: C++, Windows API, network protos

A programmer @ Gurwin TechSat (Asher Space Research Institute) : micro-satellite C&C
1995 - during studies - developing parts of system (GPS, telemetry etc): C/C++, x86, maths

The programmer @ Center for Promotion of Learning and Teaching : robot-aided training
1993 - during studies - programming for spatial abilities in kids: Pascal, DOS, x86, maths

2024 ("self-server" pet project) cloud-based personal, collaborative video production pipeline, with multi-device media storage input, automated or assisted media pre+post processing and various media publishing output, based on the FFmpRb video-as-code DSL and micro-engine (see below)
- designing event-driven Git-based loosely-coupled media production component environment with FFmpRb-document-based communication
- autonomous iCloud input and YouTube output event-driven [micro-]comps
- auto-analysis and webUI-voiceover [micro-]comps [streamlined video prod'n]

2023 (client's startup project) private-cloud-based stock-exchange trade data mining and intelligence system for specialised analytics business
- high-volume SE MBO protocol dump ingestion [binary GBs to SQL DB in secs]
- DB design and ETL of multiple document sources [incl. robust web scraping]
- batch heuristic analysis and web-based case app [all in all ~200 work hrs]

2020 ("self-server" pet project) the ultimate cloud-based "private virtual vehicle" / real digital property / live computing workshop / online presence authority / pragmatic digital-self platform/toolkit
- designing elaborate test bed, minimalistic architecture and interfaces
- expressing proven methodologies and integrating popular technologies
- designing peering stack and building it along other system [micro-]comps
- facilitating fully contained full-stack web app (co-)development, staging and de+centralised deployment and integration [yield: from zero to a properly tooled collaborative R&D process of any prototype system in under a day]

2017 (startup company's project) "BandManage" elderly-healthcare multi-interface system for ML- and expertise- based real-time and periodic analysis and alerting
- connection-switching server for areal wearable-sensor data collection [robust]
- extensible, accessible analysing and alerting pipeline [w/efficient partition]
- backoffice, report and analysis web apps [led through pilots to paying users]

2015 (startup company's project) "ShowBox" "Instagram for video" creator-light app
- cloud-based monitored video production pipeline [ended processing failures]
- "FFmpRb" - open-sourced video-as-code high-level DSL and micro-engine

2013 (client's startup project) "Aero-plan" insured medical repatriation system
- end-to-end full-stack multi-interface app [6 months of work to market share]

2011 (client's startup project) cloud-based social website plugin
- website and browser extension-based webpage-embedded app with IM
- server, backoffice and admin apps [one more example: few months to market]

2007 (company's internal project) "nielsen" customer-generated-media analysis
- market-research analyst env with many stats methods [integrated systems]
- implementing sentiment analysis with text search engines [worked with PhD]