

Fernando Daniel Farias

Solutions Architect / Sr. Tech Leader / Program Manager



PROFESSIONAL SUMMARY

- 15+ years' experience in software development and architecture, with proficiency in Java, C++, Microservices and Cloud environments.
- Excellent communication and interpersonal skills. Experienced working with people from the USA, India, Brazil, Lebanon, Chile, Ukraine and China.
- Experienced in Agile methodologies and process management.

TECHNICAL KNOWLEDGE CLOUD

JAVA	Java 14, Android Apps, JDBC, Hibernate, JPA, Spring, Spring Boot, JProfiler, Ehcache, Memcache, Quartz, Terracotta, A-MQ, SQS, SOA, SaaS, Cloud deployments and microservices architecture in AWS.
C++	C++11/14/17/20, Unreal, OpenGL, DirectX, SDL, XNA, Boost, Xserver, OpenAL, CppCMS, Augmented Reality, ffmpeg, Poco, Box2D, Bullet, Urho3D, CUDA, OpenCL, MQTT, Parallel Processing, ESXi Hypervisor.
Web Development	Rich Internet Applications, OAuth2, REST, SOAP, WebGL, KineticJS, JSON, BSON, Thrift, HTML5, XML, Websockets.
Development Tools	Intellij Idea, Android Studio, Visual Studio, NetBeans, Eclipse, Vim, GIT, Perforce, SVN, Jenkins, Bamboo, Pipelines, Maven, Gradle, QtCreator, Sonar, Jira, Confluence, Crucible, Bitbucket, Gitlab, Github, Grafana, Swagger, Slack.
Web Servers	Apache, NginX, WebLogic, Tomcat, JBoss, WebSphere.
Databases	Aurora, Oracle, HyperSQL, PostgreSQL, MySQL, SQL Server, DynamoDB, MongoDB, H2, Redis, Neo4j.
Embedded	Android: Java. Automotive: Kanzi, Qt.
Operating Systems	Linux, Windows.

PUBLICATIONS

IEEE América Latina - Speedup in Parallel Rendering System with Computational Best-effort Scheme
<https://ieeexplore.ieee.org/document/8358683>

ARTICLES

Automotive Kanzi - Cluster and infotainment design and implementation for the CES 2018 using Rightware's Kanzi.
<https://www.globallogic.com/blogs/is-kanzi-really-transforming-ui-design/>

LANGUAGES

- Spanish (native)
- English (advanced)
- Japanese (basic)

AWARDS

Quarterly Crack Team Award Q2-FY16

"Congratulations!!"

Quarterly Crack Team Award Q1-FY16

"Crack Team well deserved."

Quarterly Crack Team Award Q2-FY15

"Congratulations to the team! During this Q2-FY15 Foundationdb have been chosen as the crack team. Thanks for your dedication, teamwork and excellent performance!"

Quarterly Crack Team Award Q4-FY14

"Congratulations to the team! In this Q4, Movero have been chosen as the Crack Team. Thanks for your dedication and teamwork! En pos de mejorar los tiempos de respuesta, el equipo de Movero comenzó a tomar métricas detalladas de los tiempos de resolución de las tareas asignadas. No obstante esto, en base al análisis de las mismas el equipo continuó mejorando sus tiempos optimizando procesos siendo reconocido por el cliente, el cual se mostró muy satisfecho con el nivel de mejora logrado."

Quarterly Crack Team Award Q4-FY13

"Congratulations!! Congratulations to the team! El equipo está haciendo un trabajo impecable generando una gran relación con el cliente. Gracias por la dedicación y el gran desempeño. Felicitaciones!!"

National Raíces Prize 2011

"En Ciencia y Tecnología, los premiados fueron Fernando Farías y Guillermo Núñez. Estos dos jóvenes crearon un navegador con sonido 3D que permite a los no videntes usar la red como cualquier internauta. "No lo podíamos creer, porque estábamos nominados con personas muy importantes. Es un gran impulso para poder seguir adelante", explicó Fernando Farías."

<https://www.elsol.com.ar/elevediez-entrego-los-premios-raices-a-los-mendocinos-destacados-en-su-labor.html>

ACADEMIC

University Studies

- Master in Computer Science / Systems Engineer - Universidad Tecnológica Nacional (current)

TECHNICAL RESEARCH

Universidad Tecnológica Nacional 2001 - Present

Project: GRIDTics, Medical Surgical Trainer

Position: Technical Leader

The project aims to create a fully functional medical trainer for complex surgery procedures. There are several sub projects including haptics controllers, human body physics computations, realistic virtual reality volume renderings, and petabyte fully saturated network traffic control.

Responsibilities: Research, develop and implement realistic rendering of human body volumes, using a cloud of graphics card enhanced machines each with thousands of OpenCL capable cores to calculate the ray tracing of lights via Monte Carlo method and configurable frame integration techniques. Implement the renderer kernels and the integration core. Develop the transformations network protocol to achieve minimum latency.

Technologies: C++, STL, Boost, Linux Kernel, OpenCL, CUDA, distributed computing.

Project: Tiressias, browse in every sense
Position: Project Manager / Technical Leader

Tiressias is a browser extension to provide Internet browser ability without the need of a screen. It was originally conceived to provide Internet access to blind people, and has grown to provide Internet access to everyone who does not, or cannot see the screen in a particular situation.

Tiressias utilises several parts of the Shelak media engine and can be plugged into every modern web browser including mobile ones. Tiressias is in development stages, but even so, it has won the first prize in the national congress for systems engineers 2007 and it has the partnership of government groups and non government organizations.

Responsibilities: Develop and implement the server side application. Planning and management of the entire project. Lead the team of 6 members. Communications and public relations with external partners.

Technologies: C++, STL, Boost, NPAPI, Android NDK, JSON.

Project: Shelak Media Engine
Position: Project Manager / Lead Researcher

Shelak is a media engine designed to cope with the differences between operating systems, hardware devices, and also facilitate developer tasks while handling media resources.

The research involved on Shelak laid the foundations in the development of parallel projects strongly media based. Some of these projects were successful in business endeavors and others in further academic research.

Responsibilities: Develop and implement the core of Shelak. Lead a team of 4 members in the development and implementation of Shelak's main components. Direct community releases of derived information and knowledge.

Technologies: C, C++, STL, DirectX, OpenGL, SDL, OpenAL, Xserver, WinAPI, Dreamcast Katana, Playstation PSP, Android NDK.

WORK EXPERIENCE (from here to end of document)

GlobalLogic USA
June 2010 – Present

Project: Google Cloud - ATTS Platform (April 2020 - Present)
Position: Senior Engineer

As part of the ATTS legal team at Google, my work is the platform support to capture, process and resolve legal inquiries in regard to Google as a service provider. Including domain registrations, trademark complaints, ads inquiries, Google Play apps legal support, and every legal case from the support desk. My tasks encompass the ATTS platform for Google legal agents, with the objective to manage legal cases, facts and evidence data, providing case traceability, audit trails, historical data, and inter-case references, to allow the agents to draw connections for better understanding and faster resolution of the cases.

Responsibilities: Design solutions and features for agents, negotiate with the team for legal requirements and implementation details. Implement, test and deploy the releases. Capture metrics. Analyze traffic data. Research ways to improve agents' tooling and cases' resolutions.

Technologies: Java, Microservices, Boq, Protobuf, Guice, HTTPS security, Agile, Scrum, Manage Deployments, Database Migrations.

Project: Google Cloud - Growth Platform (March 2019 - March 2020)

Position: Senior Engineer

As part of the Growth team with the objective to increase customer conversion rates and user base at Google, the team's task is of utmost importance to the company. Conversions generate up to 12% revenue increase and Google is focused on bringing more customers to the enterprise platform. My task is to ease the onboarding process to avoid losing customer opportunities. Analyzing the metrics, the user journey, the RPC latencies, every aspect that can improve conversions. Designing and implementing different experiments to try in production at 1% traffic, to later adopt the best ones in an evolving process.

Responsibilities: Research ways to improve conversion rates. Capture metrics. Analyze traffic data. Design solutions and negotiate with other teams the requirements to implement them. Deploy the solution in the cloud ecosystem. Gather production experiment data and monitor the solution's performance for future improvement opportunities.

Technologies: Java, Microservices, Boq, Protobuf, Guice, HTTPS security, Agile, Scrum, Million QPS performance.

Koochapps

February 2016 – May 2019

Project: CashTag (April 2018- May 2019)

Position: Solutions Architect / Program Manager / Chief Technical Officer

Design and develop a solution for gas stations to cooperate into a credit union, allowing customers to use gas points as credit balance, evolving in conjunction with Prisma payment methods, to evolve into an alternative moneyless payment method. I was leading the efforts from capturing the requirements to designing the solution and interactions with payment methods, to later oversee deployment in the alpha stage.

Responsibilities: Capture requirements. Analyze interactions with external systems. Design the architecture for the solution. Oversee implementation. Deploy the solution. Capture metrics, DevOps and performance tuning, during the initial production stage.

Technologies: Spring Boot, AWS, Payment Integrations, CodePipeline, RDS, PostgreSQL, Gradle, REST, Agile.

Project: Masseroni Textile (June 2016 - February 2018)

Position: Solutions Architect / Program Manager / Chief Technical Officer

Create a cloud based solution to manage the internal processes of Masseroni Textile industries. From the payment to providers, stock exchange, product stages, bulk requests, quotes and invoice generation, to financial balances and reports. Every aspect managed automatically in the cloud in a cost effective elastic model. Capture the requirements, design the solution, the implementation, scalability and deployments.

Responsibilities: Design the architecture. Implement the solution. Deploy the system in the AWS cloud, with security and elasticity based on location and the client's users base. Design the migration plan. Support legal requirements based on local legislation. DevOps during the initial production phase.

Technologies: Spring Boot, AWS, Elastic Beanstalk, CodeDeploy, RDS, PostgreSQL, Gradle, REST, Agile.

GlobalLogic Argentina

June 2010 – February 2019

Project: Kanzi - BMW I8 Cluster and Infotainment (September 2018 - February 2019)

Position: Solutions Architect / Program Manager / Senior Technical Leader

Create an entire, completely digital, visually stunning, instrument cluster for the proposed BMW I8 concept car, using Kanzi Studio and the Kanzi platform. Adding integrations for external data inputs, through an IoT protocol, allowing the

cluster to respond to external consoles, like an Android app. Include an infotainment touch panel allowing the copilot to control the interior climate, music, car statistics, maps and navigation. Connecting all through the MQTT protocol enabling quick and reliable response to car events like low pressure tires or engine fuel consumption plans.

Responsibilities: Research and design the data protocol. Implement the data interface between the different discrete processors using the MQTT IoT protocol. Develop the entire Android application. Implement the Kanzi MQTT support, and the Kanzi multimedia decoding facilities. Add support for GPS and navigation to the solution.

Technologies: Kanzi Studio, Kanzi Platform, MQTT, Android Studio, Java 8, C++14, Visual Studio 2017, Boost, Sockets.

Project: OKCredits - Platform (April 2018 - September 2018)

Position: Solutions Architect / Senior Technical Leader

Take the project in its final development stage and deploy the solution. Design the deployment architecture, technical requirements, procedures and methodologies for secure automated deploys. Define the branching model, the merging steps, the quality checkpoints and the staging procedures for the solution. Generate the docker clusters, balancers, involve the client in security certificates, and automate the entire procedure with maintainable scripts.

Responsibilities: Technical assessment, architecture for the deployment solution, technical documentation, automated deployments in AWS, CI/CD from Bitbucket and private Gitlab, docker clusters automatic elasticity, high availability implementations, branching model, quality checks, and performance reports.

Technologies: AWS EC2, ECS, ELB, ALB, Route53, S3, CloudFormation, IAM, RDS, ElastiCache, VPC, X-Ray, CloudWatch, Bitbucket pipelines, Bash, Docker, Swagger, Java 8, Spring Boot, Microservices, Choreography,

Project: Comafi - Banca Unificada (October 2017 - April 2018)

Position: Solutions Architect / Senior Technical Leader

Create the architecture to modernize the entire banking operation. Capture client's technical status and non functional requirements. Design the movement stages from monolithic Tomcat6 Struts1 web app, to cloud native Java8 microservices. Negotiate technical impossibilities along with legislative constraints. Create documentation to teach the bank's personnel how to work under the new procedures. Develop the main aspects and supervise the implementation of the rest. Plan the maturity steps and coordinate the efforts, while maintaining the release schedule on target. Replace all the banking operations types into one Unified Banking experience for the end users.

Responsibilities: Technical assessment, capture technical requirements, architecture the solution, document the architecture, define fine grained specifications, report time and effort estimates, implement the initial stages in AWS, generate DevOps definitions, train the DevOps, split the 47 people's efforts into separate Scrum development teams, provide technical leadership, supervise teams' efforts, develop the containment and interactions with legacy systems, oversee security checks, code quality levels and performance implications.

Technologies: AWS EC2, ECS, ELB, ALB, Route53, S3, CloudFormation, IAM, RDS, ElastiCache, SNS, SQS, API Gateway, Lambda, VPC, X-Ray, CloudWatch, Bitbucket pipelines, Bash, Docker, Swagger, Java 8, Spring Boot, Microservices, Choreography, Legacy SOAP integrations.

Project: VMWare - VSphere (March 2016 - October 2017)

Position: Architect / Team Leader / Technical Leader

Feature development for the administration console web application. Remote management of virtual machine instances, template coordination, orchestration, BI dashboards and metrics from the virtualization layer kernel modules.

Responsibilities: Organize the 18 people's efforts into teams, provide Scrum Mastering, and technical leadership. Develop the architecture, interface and services for the H5 cloud administration platform. Manage deployments, implementations, bug fixing, security checks, quality and performance. Train the Indian team for the take over.

Technologies: Spring MVC, Spring Boot, Flex, BlazeDS, Java 8, Gradle, Sonar, Bamboo, Virtualization, Xen, Linux Kernel loadable modules, Perforce, AppCheck, Bash.

Project: Coopeuch (March 2015 - March 2016)

Position: Architect / Team Leader / Technical Leader

Development of the following applications for the largest credit union from Chile:

- Complete web Home Banking, including monetary transactions, credits and security challenges.
- Mobile Home Banking for Android, IOS and mobile platforms.
- Enterprise public site, with institutional information and marketing campaigns.

Responsibilities: Lead the team, organize team efforts. Develop the architecture, interface and services for the REST platform. Manage deployments, implementations, bug fixing, security points, quality and performance.

Technologies: Spring MVC, Spring Boot, JBoss, Websphere, Apache CXF, SOAP, REST, Java8, Gradle, Sonar, Bamboo, OAuth2.

Project: Roku Inc. - Channel Apps (October 2014 - February 2015)

Position: Project Manager / Team Leader / Technical Leader

The Roku streaming player is the market leader in streaming entertainment devices for the TV. Roku streaming players are renowned for their simplicity, variety of entertainment choices, and exceptional value.

Roku channels take the form of small apps, usually free to download and install into the Roku player. Once the app is installed it offers a variety of content specific to the channel, in a custom interface, following a pattern so Roku usability is kept between apps, and seamless streaming is made possible. These apps can be made in a top level scripting language known as BrightScript, or directly into native code using the provided C++ NDK.

Responsibilities: Develop apps channels for third-party companies while enhancing the NDK for Roku. Capture requirements, architect the solution, manage the project, lead the development team, and develop the app itself from zero to production.

Technologies: BrightScript, C++, XML, JSON, RTMP, 2D games.

Project: Movero Inc. - Tools Suite (August 2013 - October 2014)

Position: Team Leader / Technical Leader

Movero Inc. is a prominent communications integral solution provider, offering from mobile devices acquisition services, to charge accounting and management. By combining flexible technology, service desk and expert consulting services, Movero addresses every mobility management challenge.

The internal tools suite is the core of Movero's business services and provides comprehensive business intelligence information to the customers, on top of the very flexible web portal management services, allowing customers and help desk agents to efficiently administer their resources.

Responsibilities: Develop tools optimizations in any and all its layers from the database to the web portal. Design and implement new and efficient architectures to handle the ever increasing customer base, while upgrading the already in place legacy applications, without service interruptions..

Technologies: Java, Spring, Oracle database, REST services, SOA.

Project: Cross Country Home Services - ECM (November 2012 - August 2013)

Position: Team Leader / Technical Leader

ECM is an intranet system dedicated to provide the information de CCHS floor agents need in order to provide a comprehensive service to the clients. ECM also provides the means to take actions over accounts, contracts, billing systems, and the extensive range of financial information CCHS handles.

ECM provides a simpler, faster and more attractive interface to the agents, replacing the decade old Oracle Forms based application. The Oracle database was maintained along with the mature and trusted stored procedures, but from there to the agent, ECM takes place. ECM handles the enrollment of clients, the authorization of services, the logistics of service providers, and the maintenance of any information regarding the client, the contract, or the services.

Responsibilities: Develop the application and the architecture for ECM, from the database connection, to the front-end interface. Provide support on technical decisions. Lead the local team. Meet in person with the client and negotiate any dependencies with the partner development companies involved.

Technologies: Java, Spring, MyBatis, Oracle database, AngularJs, REST.

Project: KonciergeMD - KMD (July 2012 - October 2012)

Position: Team Leader / Technical Leader

KMD starts from the need to maintain medical records, updated, centralized, and rapidly accessible to the medical staff of Philadelphia.

KMD aims to provide the means to easily access the clinical history of the patients. It also efficiently arranges the appointments for the health providers, even more, giving the caregivers the option to make and follow the appointment on-line. The system also centralizes the test results and the diagnosis, so the patient can be assisted in any health center of the region.

Responsibilities: Develop the web application in all its layers, from the data model definition, to the front-end interface. Provide the expertise view over technical decisions. Lead the local team.

Technologies: Java, Play, EBean, H2 database, YAML, Scala.

Project: SampleDigital - DAX D3 (May 2012 - July 2012)

Position: Team leader / Technical Leader

The client has the largest suite of products for the development and manipulation of audiovisual resources, including administration tools for the production process and edition of audiovisual materials.

Dax D3 provides an extensive tools suite for the collaborative manipulation and development of audiovisual material, in a robust, fast, and secure work flow, going through editors, directors, and quality assurance staff.

Responsibilities: Develop and infrastructure based in Cloud services to provide elasticity to the application. Implement the remote services layer to provide the extensive audiovisual materials in a highly performant way.

Technologies: Java, Alfresco, Ehcache, Spring MVC, C++, Ffmpeg, Bash.

Project: Midawi Holdings - DoughMain (September 2010 - May 2012)

Position: Team Leader / Technical Leader

Midawi Holdings, Inc., headquartered in Princeton, NJ, was founded to take on the growing challenge of financial literacy among youth and adults. The company's mission is to deliver a better way of organizing the family that is both more efficient and effective.

DoughMain is a Family organizer packed with tools for busy lives. Recognizing the central role of money -and money smarts- in creating a better future, also empower kids to become better educated and more confident about money management and financial topics.

Responsibilities: Lead the team of 17 members. Design the architecture and infrastructure. Supervise implementation. Make decisions regarding technical issues.

Technologies: Java, JSP, Servlets, Mobile Web, Spring, Hibernate, Apache Tomcat, MySQL, Amazon AWS (EC2, S3, RDS, SES, CloudFront), RightScale, Bash, Terracotta, Quartz, EhCache.

Aconcagua SF
May 2010

Project: MFC Framework
Position: Lead Developer

Aconcagua SF provides software development services based mainly in Microsoft products. One of the clients needed metrics about quality and performance for the project under development.

As an external consultant, I was in charge of the development of a .NET component to profile running processes and derive metrics from method calling, method time usage, and resource usage. In addition I had an Aconcagua SF developer in charge, for the task of creating graphics from the metrics recorded.

Responsibilities: Develop a .NET component to profile running processes. Oversee the development of a front-end with graphics for the metrics recorded. Deploy the solution.

Technologies: C++, STL, WinSockets, COM, .NET.

Clifton-Myers Enterprises
June 2008 - April 2010

Project: Tangoe - Interconnectivity Modules
Position: Lead Developer

Tangoe is the leading global provider of Communications Lifecycle Management (CLM) software and related services to a wide range of global enterprises. CLM encompasses the entire lifecycle of an enterprise's communications assets and services, including planning and sourcing, procurement and provisioning, inventory and usage management, invoice processing, expense allocation and accounting, mobile device management (MDM), decommissioning, and disposal.

In each enterprise there are a number of different systems dedicated to internal and internal-external communications, associated with expenses processing. These systems are usually based on well known protocols, but sometimes they use custom protocols, or they use custom systems all together. For each of these custom systems, an interconnectivity module must be developed in order to use enterprise's data inside Tangoe CLM.

Responsibilities: Develop interconnectivity modules. Implement communications device specific interconnectivity libraries. Implement invoice mapping for automatic transfers between the enterprise's invoice system and Tangoe CLM.

Technologies: Java, C, C++, Drools RBM, COM, STL, Sockets.