

EXPERIENCE SUMMARY

- Over 10 years of full-cycle software development
- Web-Related (full-stack)
- Custom Automated Test Platform Development

My Youtube Playlists (Robotics, Home-Grown Voice-Recognition, Self-Driving Car)
<https://www.youtube.com/channel/UCb72Jlp6nYxED-Q6NA3mRxg/playlists>

My Youtube Video List (if you scroll through it, you will see embedded programming, machine-learning, and more)
<https://www.youtube.com/channel/UCb72Jlp6nYxED-Q6NA3mRxg/videos>

Self-Driving Car Project (ongoing)
<https://www.youtube.com/watch?v=TwHOTpHO9vE>

Github links to some of my projects
<https://github.com/elicorrales/links-to-projects-articles-videos-code>

RELEVANT PROFESSIONAL EXPERIENCE SUMMARY

MOTOROLA, FL

Sr. Software Development Consultant

- Code reviews.
- Mentored other programmers on subjects such as Unix, OO, and Java.
- **Produced an automated test platform** used for regression-testing of firmware releases. Different versions were produced: one Unix-based using C++/C, then ported to WinNT and VC++, and one Java-based.

Technologies: SDLC, RUP, Use-Cases, Sequence Diagrams, Inception, Elaboration, Construction, Transition, Requirements, Analysis, Design, Implementation, Test, Configuration Management, Object Models, Rational Clearcase, Rational Rose, UML, OOA,OOD,OOP, round-trip engineering, Data Modeling, Java, Swing, JDBC, SQL scripts, mySQL, Unix(Solaris, SunOS, Cygwin), WinNT, Visual C++, C++, Perl, shell scripting, Tcl/Tk, GNU, gcc, IEEE488 protocol, RS232 serial comm., cross-platform development, n-tier Web development, mentoring

MOTOROLA, FL (2nd stint)

Lead Software Developer / Architect

Core Java

Activities:

- Developed Automated-Testing Platform for mobile/wireless phones.
- Code reviews.
- Joint application design sessions (JAD) employing UML and using Rational Rose.
- Prototyping – build GUI pieces using Java/Swing or underlying modules quickly and use them to firm up existing requirements or establish new ones. Also used to discover required efficiency improvements.
- Establish, design system architecture and public interfaces – establish separation of concerns; this also allowed for easy division of labor to different individuals
- Plan releases – limit scope and produce system releases on short cycles (2wks to 1 month)

RESUME OF ELI CORRALES

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- Iterative, incremental process – short cycles, grow system, peer review, pair programming, implement unit tests first; similar to Extreme Programming.
- Mentoring, knowledge transfer – As a contractor, need to bring in-house personal up to speed on project, methods, technology and process
- Designed and implemented a dynamic state-machine within the database, using MySQL. Interfaced to the middle/business layer with JDBC.
- Integration – design the 'glue' or method of transferring information from system under development to the reporting / tracking system.
- Technologies: Design Patterns(singleton, MVC, bridge, wrapper, adapter, fascade, others), Unix(Solaris, SunOS, Cygwin), SQL scripts, SDLC, OOAD, Test-first, Configuration Management, Rational ClearCase, Rational Rose, UML, round-trip engineering, Data Modeling, Java, Swing, multi-treading, JDBC, MySQL, data normalization, WinNT, shell scripting, GNU, gcc, RS232 serial comm., socket programming, cross-platform development, client-server development, feature-driven development (FDD), extreme programming, agile modeling.

PROTEL, INC, Lakeland, FL

Feb 1988 – Aug 1996

Developer

- Developed an automated-testing platform to do performance-limit testing against the company's main commercial software system. The test platform simulated 120,000+ remote terminals. Written in C/C++/ Unix.
- Produced embedded, low-level (machine-language) (assembly), and high-level (C, C++) software and hardware, including automated testing tools.

Principle developer of a key commercial software system for a large telecomm company. **Technologies/skills:** Digital/analog circuit design, breadboarding, scopes, meters, analyzers, DOS, BIOS x86 assembly programming, event loop programming, 6502 assembly embedded programming, parsers, AIX, HP-UX, Solaris, SUNOS, Unix SVR4, SCO, Unixware, Informix, SQL, C, Perl, Tcl/Tk, Xlib,Xt,Motif, C++, OOD, OOP, shell scripts, full-cycle software development process, IPC(queues, shared mem, pipes, etc),multi-processing.

FOXCONN.COM, FL

Software Engineer

The company is an engineering design center tasked with producing the next generation of higher tier mobile handsets. I was involved in two departments: Applications Development and Testing/Tools Development.

- Research / assist Testing/Tools department automated test tracking tools, and and procedures
- Develop Android / Java applications –
 - desktop app with virtual thumb pad, (replaces wheel); pan across desktop, zoom in / out
 - a paint app, using virtual thumb pad

Technologies: Agile methodologies, Java, Ubuntu, Linux, shell scripts, XML, Cygwin, SQLite, android, Junit, Positron, automated testing, Eclipse, ant

PROLEXIC.COM, FL

Sr Software Engineer

- C / C++ / Perl development – enhancement of in-house provisioning tool that configures Citrix Netscalers.
- C programming (client-server , socket), Mysql.

Technologies: C, C++, Ubuntu, CISCO routers, Spring, Hibernate, Fedora, Centos, Linux, MySQL, Eclipse, Portlets, Liferay, JSR 168, JSR 286, velocity, javascript, bash shell scripts, Perl, Java, OOA, OOD, OOP (object oriented programming), Selenium, Axis2, Tomcat, ssh, scp, Expect, vi, sed, awk, regex, XML, Maven, tcpdump, nmap, SQL Injection Penetration Techniques, Citrix Netscaler

TRACFONE.COM, FL

Sr Software Engineer (Unix)

- Enhanced existing enterprise-level middle-tier infrastructure batch process (Java), greatly improving throughput, reliability, and increasing flexibility by having it able to receive inputs from new sources such as databases and JMS queues, extracting client XML data and handing it off to other services, all based

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on XML-based processing rules (in-house XML-based programming language). This project was extensive Java development.

- Continuous improvements by automating previous manual business processes.
- Active participant in full-cycle development from requirements analysis through design, implementation, unit test, integration test, user-acceptance, deployment and maintenance.
- Mentor others in Java and Unix.
- Migrate complete java-based system (middle tier – batch processing system) to Windows Cygwin for ease of development.
- Csv2xml, xml2csv conversion scripts (handle data errors)(Perl)
- TCP socket client (simple browser)(C/C++, cygwin)

Technologies: Perl, C/C++, BEA Weblogic, Java, Oracle, Spring, Eclipse, CVS, SQL, SunOS, Cygwin, XML, XSLT, shell scripts, maven, Apex, PL/SQL, SOA

MITEL, INC, Boca Raton, FL

Technical Training Coordinator – Guide the efforts of a group of trainers in developing written and video courses for electronic technicians. Courses covered the electronic theory of operation on various equipment, down to the component level.

Supervisor – Oversaw efforts of 10 employees. Responsible for the intake, testing, repair and shipping of all equipment returned from customers.

Lead Electronic Technician – Oversee the efforts of several technicians in their troubleshooting and repair of electronic circuit boards. Mentor them on difficult circuit operations.

Electronic Technician – Troubleshoot electronic circuit boards. These contained microprocessor circuits, digital circuits, analog circuits. Employ logic analyzers, write and execute machine-language routines, utilize scopes, meters, and other equipment to pin-point the faulty component(s).

Developer

- Responsible for a PC based GUI administration application. This tool was used by field personnel to configure the company's main product, which was an embedded controller used on very large, industrial motors and power distribution grids.
- Full life-cycle development, tool research and evaluation, recommendation.

Technologies used: OOAD, OOP, VC++, Win32 SDK, RS232 serial comm., MODBUS protocol.