MARK LAPOINTE

INNOVATIVE ‖ INSPIRATIONAL ‖ CREATIVE LEADER

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SENIOR SOFTWARE ENGINEER

HIGH-PERFORMANCE APPLICATIONS ♦ SOFTWARE & SAAS SOLUTIONS ♦ FULL LIFE CYCLE CONFIGURATION

Talented senior software engineer with proven track record designing and executing world-class software infrastructure, mobile and systems applications, and SaaS solutions

Engineering leader valued for driving quality and consistency throughout all phases of software development projects. Partner with developers, analysts, QA, and support engineers throughout product life cycle to create cutting-edge engineering solutions, optimizing code and producing user-friendly, scalable, and bug-free software. Extensive expertise in large system architecture development and administration as well as network design, configuration, and automation. Focus on achieving bottom-line results while formulating and implementing advanced, technologically intricate solutions to meet a wide array of industry problems.

SELECT CAREER ACHIEVEMENTS

Design cybersecurity systems and services to monitor, detect, simulate, and mitigate threats	Apply cutting-edge technologies to optimize operational responses	Save time and money with process automation – cut manual tasks 40% and slashed support costs 50%
Create and enrich reporting and monitoring tools	Integrated a plant-wide factory visualization and monitoring system	

SOFTWARE ENGINEERING SKILLS

- Solutions Engineering, Testing, & Optimization
- SDLC Strategy & Leadership
- Mobile & Cloud Solutions
- Data-Driven Applications

- Reliability & Scalability, Automation
- Enterprise Software Development
- Global Project Management
- Security & Manufacturing Operations

PROFESSIONAL EXPERIENCE

PRINCIPAL SOFTWARE ENGINEER

REDWOLF SECURITY, Toronto, Ontario   **2019 – Present**

A next-generation platform trusted by hundreds of Fortune 2000 companies to validate defense performance, improve alerting and detection of events, calibrate mitigation systems, optimize operational responses, and confirm SLAs and controls.

Improve clients' cyber defenses by designing systems and services to simulate threats, monitoring customer sites for security and performance concerns, and recommending improvements to management.

➜ **Design and integrate new core framework features** used for scanning, monitoring, and reporting on customer systems. Features could include new testing capabilities, new functionality to extend the framework to be integrated into projects, and expanding the capability to discover or report new issues and events.

➜ **Create systems and services** in the form of virtual machines and docker containers that generate attack traffic and report on what has been discovered.

SENIOR APPLICATIONS SOFTWARE ENGINEER

AKAMAI TECHNOLOGIES, INC (ACQUIRED PROLEXIC TECHNOLOGIES), Fort Lauderdale, FL   **2007 – 2019**

A global content delivery network, cybersecurity, and cloud service company, providing web and internet security services for some of the world's largest corporations (Amazon, Microsoft, Facebook, Apple, etc.).

Served as project manager, lead software engineer and/or team member on dozens of application development projects. Adhered to high-quality development standards while delivering technology solutions on-time and on-budget.

Employed cutting-edge technologies to collaborate on the following projects:

➜ **HTTP Anomaly Detection** – Statistically analyzed web traffic to find patterns that do not conform to expected behavior to identify malicious actors.

➜ **Real Browser Verification** – Designed a system to analyze web client traffic to determine if a client was using a real web browser and to block the client if it did not pass validation.

➜ **Cluster Commander** – Maintained a system to manage customers and their configurations on the network.

➜ **Statistical Graphing System** – Generated graphs to identify issues on the network, anticipate attacks, and start investigations when appropriate.

➜ **Customer Portals** – Enabled customers to view their network, services, contact information, etc.

➜ **Namespace / Network Object Mapping and Keyspace Validation** – Created standardized descriptions of all objects utilized to have built-in validation based on an attribute and class dictionary.

➜ **FBM / Flow Based Monitoring** – Statistically analyzed the traffic flowing through enterprise routers to detect malicious patterns.

➜ **Talaria / Dynamic Scrubbing Center Routing** – Designed systems to dynamically redirect traffic flow to alternate data centers to manage traffic.

SENIOR SOLUTIONS SPECIALIST

DATAREALM, INC., Windsor, ON   **2004 – 2007**

A solution provider to manufacturers in North America. Solves a wide range of complex client issues including controls engineering, automation of information systems, and software development.

Devised and integrated solutions to resolve production problems, resulting in increased efficiency and productivity, working independently and collaboratively with team of 12. Successfully trained clients and employees and implemented software solutions.

➜ **Developed and implemented a real-time production system solution for Ford Motor Company** to replace a VAX based system known as MMS for 700+ machines. Integrated a plant-wide factory visualization and monitoring system.

➜ **Promoted lean manufacturing methodologies and increased efficiency** by creating applications that allow OPC services to communicate with PLCs, and read values, to capture events into order to present in a report or visually in real time.

➜ **Assisted in modernizing antiquated VAX-based processes** known as POSMON and MMS by developing conversion tools for each system to extract essential information to automatically configure the replacement system.

➜ **Provided extensive support on a project to monitor tool life** called TOOLMON.

➜ **Created an API interface** for Flow International, a DLL that acts as an OPC client to a PLC and feeds information to control water-jet-based CNC machines.

➜ **Created a web-based reporting package** for Activplant using XML transformation to produce the reports.

EDUCATION, CERTIFICATIONS, TECHNICAL PROFICIENCIES

Bachelor of Computer Science, 2004, UNIVERSITY OF WINDSOR, Windsor, ON

CERTIFICATIONS

Hurricane Electric 2019: IPv6 Certification Sage **|** Erion 2013: Implementing and Securing IPv6 for Developers
BlackHat 2013 Training: The Shellcode Lab **|** BlackHat 2010 Training: Mitigating DDoS Attacks by Cisco Systems
BlackHat 2008 Training: Tactical VoIP **|** Activplant Training 2005: Certified in Activplant Foundation SDK

TECHNICAL PROFICIENCIES

Web Development Client Technologies:	Angular, jQuery, AJAX, CSS, HTML, JSON, YML, RAML, XML, XSLT, REST
Web Development Server Technologies:	JEE, Spring, Apache Commons, Apache Tomcat, Apache HTTP Server, Nginx, Microsoft IIS, REST, Axis 2
Programming Languages:	Java, JavaScript, ECMAScript, NodeJS, Typescript, GoLang, Perl, PHP, Python, Visual Studio 6.0, Visual Studio .Net, Shell Scripting (CSH, BASH, KORN), BASIC, Turing, Miranda (Haskell), Pascal, C/C++, J2EE, Go, Batch
General Development Technologies:	Eclipse, Make, Maven, GCC, LLVM, Ant, Jenkins, RAML, Visual Paradigm, JIRA
Database Platforms:	MySQL, MemSQL, Oracle, MS SQL, MongoDB, Neo4j, Redis, Cassandra
Operating Systems:	Linux, Mac OS X, FreeBSD, OpenBSD, NetBSD, Microsoft Windows, Solaris
Orchestration:	VMware, Xen, XCP-NG, FreeNAS, Docker, Bhyve, AWS, GCP, Terraform, Chef

TECHNICAL SUMMARY: Complete list, please go to mark-lapointe.com