Lauro Arnoldo Salazar

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Senior Cloud/DevOps Engineer

As a technologically adept and solution-focused leader, I bring a wealth of experience in managing, maintaining, and troubleshooting critical applications and network infrastructures. Known for my technical dexterity in handling mission-critical environments, I excel in steering projects that require deep technical understanding and strategic foresight. My career is marked by a dedication to continuous improvement and a talent for fostering collaboration across diverse teams. This has enabled me to not only solve complex problems but also drive the adoption of innovative technologies and processes. My expertise encompasses the strategic deployment and troubleshooting of hosted solutions, making me a go-to expert for developing and optimizing virtual environments. With extensive hands-on experience in cloud infrastructure, I am proficient in VMware, Hyper-V, and Azure, and have a solid understanding of AWS, complemented by a solid grounding in programming, storage systems, and load balancing strategies. This technical foundation is bolstered by my strong communication skills, allowing me to effectively liaise with both internal teams and external partners. A hallmark of my professional journey is my ability to transform organizational inefficiencies into streamlined, technology-driven operations. I take pride in translating complex business needs into practical, high-impact technological solutions, consistently delivering results that speak to both immediate needs and long-term strategic goals.

Technical Proficiencies

Programming Languages:	Terraform, Ansible, BASH, Python, PowerShell, SQL, C#, C++, .NET, HTML, CSS, JavaScript, APIs
Operations, Virtualization, Clouds, and Platforms:	VMware, Hyper-V, F5 Networks BIG-IP Load Balancing, HAProxy, CISCO UCS, HP ProLiant, Nimble SAN Storage, NetApp, Microsoft Azure, AWS, GCP, Cloudflare, Kubernetes, , High Availability, Windows and Linux Servers, DNS, DHCP, TCP/IP, VPC, Subnetting, Application Firewalls, Varnish, Azure CDN
Tools:	JIRA, LogicMonitor, Zabbix, Teamcity, Octopus Deploy, Gitlab, Jenkins, Veeam, Splunk, ELK, Git, Grafana, Postman, Bitbucket, HashiCorp Vault, Active Directory, BitSight, Nexpose, Failover Cluster Manager, IIS, Apache, IPAM, Visual Studio, MSSQL Server, MySQL, MariaDB, Wireshark, Nmap, LDAP, SSH

Career Experience

Artisight, Remote — April 2024 – Present
DevOps Engineer | Engineering

Edgio, Remote — August 2023 – March 2024
(Note: Edgio is the successor of Limelight Networks, Yahoo! Edgecast, and Layer0)
Technical Services Engineer/Architect | Technical Services, Media Content Delivery

Transitioned into a specialized role to enhance the private cloud Kubernetes infrastructure supporting a major customer's live streaming services at Edgio. Tasked with leading the development of tailored solutions within the Technical Services Engineering team, I focused on optimizing traffic flows exceeding multiple Tbps, leveraging my expertise in Data Center operations, Kubernetes, Media Delivery, and Software Development.

- My role mainly encompassed standardizing our Cloud Operations, pioneering automation, and implementing robust monitoring. I also contributed to optimizing Media delivery performance through implementing Data Science solutions to optimize Media delivery performance and overseeing live event coverage. We supported events such as Thursday Night Football 2023, and Super Bowl 2024 - among others.
- Established monitoring and alerting protocols utilizing Edgio's standard tooling frameworks, including Zabbix, Observe and PagerDuty, along with other proprietary tools developed in-house.
- Conducting real-time data science analysis of container application logs to track client experiences. This involves extracting key metrics such as average bitrate, buffer and error rates, audio latency, session count and duration, specific URLs, streaming device operating systems, and the ASN directing the traffic.
- Pivotal in spearheading the development of a Python-based automation tool, a key component in efficiently directing traffic across our CDN according to ASN and handling vast volumes of data - which directly translates to revenue.
- Developing tailored dashboards with Kentik for detailed analysis of network traffic distribution patterns.
- Conducting research on operating system optimization specifically for Kubernetes environments to enhance live streaming capabilities.

Edgio, Remote November 2022 – August 2023
Advanced Solutions Engineer | Technical Services, Media Content Delivery

Edgio, emerging as a frontrunner in edge application orchestration and content delivery, has expanded its capabilities and global reach through the strategic merger and acquisition of Limelight Networks, Yahoo! Edgecast, and Layer0. This consolidation positions Edgio at the forefront, boasting the world's most extensive and finely tuned private network, backed by a team of experts dedicated to delivering fast, secure, and reliable edge services.

- Directly collaborating with client technical teams, I analyzed both business and technical challenges to deliver solutions that align with their objectives. This approach not only addresses their needs but also nurtures relationships that contribute to business expansion.
- Proactively and reactively diagnosing and resolving client issues at global Points of Presence, encompassing network and server infrastructure problems, as well as providing support for CDN configuration.
- Engineered a Netflix replica within our internal infrastructure, establishing a client-like setting to evaluate DASH, HLS, Live, and SMOOTH streaming playback, along with gathering comprehensive statistical data.
- Utilizing a centralized SQL-based logging system, I conducted analysis and review of network traffic data to pinpoint potential enhancements and oversee the health status of the CDN, particularly for large-scale objects like Video-On-Demand and Live Streaming.
- Architecting, developing, and sustaining automated solutions that interface with Edgio's APIs, employing Python, Shell, Infrastructure-as-Code methodologies, and DevOps practices. This ensures the delivery of streamlined and consistent client configurations for our intricate CDN infrastructure.
- Provide top technical expertise and mentorship to customers at Edgio and internal staff on how the CDN infrastructure functions, and internal tooling, displaying knowledge of IP, DNS, HTTP, TCP/UDP, Anycast, CARP protocols, as well as *nix Operating Systems, Web Servers, Caching technology, and Serverless computing concepts.
- Developing data science and monitoring solutions to assess client experiences with Video On Demand and live streaming content, focusing on metrics like bitrate, latency, time to first byte, buffer rate, error rate, and more.

Accruent, Austin, Texas March 2022 – October 2022
DevOps Engineer II | Platform Operations, Engineering

DevOps at Accruent helps bridge the gap between Engineering and Cloud Operations by fostering relationships and collaboration alongside the organization in an effort to continuously improve enterprise-level infrastructure and applications for reliability and scalability. Likewise, drive enthusiasm and promote adoption of the principals and philosophy of the DevOps methodology across all teams. Play a key role in ensuring system and application uptime and reduction of bugs; all to ultimately increase customer satisfaction in our Products.

- Develop and continually improve product release automation for applications spanning multiple private data centers and public cloud environments, primarily MS Azure, and AWS, GCP, including customer-facing production environments.
- Building and maintaining the CI/CD pipelines for Accruent's software applications. Maintaining tools such as Jenkins, Teamcity, Octopus Deploy, and Proget. Promote the expectation that internal tooling be treated as Production level products themselves. Modernizing build agents to reduce the footprint of OS we need to maintain by using containers.
- Enabling self-service capabilities for Infrastructure Cloud Operations teams by creating Terraform and Ansible scripts for creating resources in MS Azure, such as new subscriptions, new network-peerings linked to firewalled infrastructure in different regions, Kubernetes services, domain controllers, and other simpler Azure services.
- Migrating self-hosted Octopus Deploy to Octopus Cloud, resulting in potential future monetary savings in administrative time and licensing different instances.
- Enable application and deployment monitoring automation to detect and correct issues, bottlenecks, and performance problems.
- Partner with software architects and developers to create standards and best practices that save the organization time and money.
- Investigating legacy systems to optimize automation and modernize workflows.

Accruent, Austin, Texas March 2019 – February 2022
Systems Engineer II | Cloud Operations, Infrastructure

Deliver technical solutions, results, and improvement of the overall health of data center operations in close coordination with Cloud Operations, Engineering DevOps, Security, and stakeholders. Design, develop, support, and maintain the organization's systems infrastructure, including the implementation of hardware and software. Research, evaluate and stay ahead of emerging tools, techniques, and technologies in a fast-paced, results-oriented, and ever-changing environment. Shape the strategic roadmap for deployment and troubleshooting of hosted solutions. Leverage core competencies in cloud environments hosting Accruent solutions in Azure, Google Cloud, and AWS.

- Pioneered in upgrading F5 Load Balancers across all geographical data centers resulting in responding to critical security incidents on time. Defined standards as well as architected and delivered HA production systems, resolved vulnerabilities,

improved configurations, and researched automation initiatives such as using Terraform or Ansible to create objects, as well as training Network Engineers on this process.

- Positioned the company at the top 10-20% security ranking by increasing the BitSight rating score from 690/900 to 780 in six months. Increasing our security rating is directly correlated to preventing breaches and hardening applications. This project involved evaluating and working with Engineering to correct issues with web application headers, SSL, legacy site redirects, DNS clean up, among other things, across all Accruent products.
- Led the migration of the QA team's critical internal tools from the private cloud's Rancher environment to Kubernetes on AKS. This was the initial blueprint for the company's Kubernetes deployment strategy.
- Spearheading best practices for Kubernetes' cluster configuration and security practices across the company by being involved in cross-departmental efforts to ascertain Accruent's next CI/CD strategy.
- Played a key role in the implementation and disabling of TLS 1.0/1.1 and applied secure ciphers across all hosted applications. Increased nearly all products from an SSL Labs scoring of (F) to an (A+).
- Developed an Identity Management solution to manage Accruent's diverse and differing Active Directory domains, which resulted in enhancing the overall security posture in the employee account lifecycle.
- Advancing DevOps principles and kaizen in software engineering conventions to reduce waste in CI/CD pipelines and coder's time (writing tickets and speaking to Cloud Ops) with an aim to improve the software development experience.
- Automated repetitive tasks using Ansible, Terraform, PowerShell, BASH and other scripting languages.
- Resolved severities for any Accruent product by troubleshooting issues in F5 load balancers, servers and networks.
- Implemented best practices to improve resiliency, best practice standards, network security, efficiency, and uptime - spanning across geographical data centers encompassing technologies such as CISCO UCS, HP Nimble, and NetApp Storage, dense VMware virtual environments, and multiple pairs of F5 Load Balancers.
- Primary responsible party for the Austin data center, as well as participating in 24/7 on-call rotations.

University of Texas Rio Grande Valley, Brownsville, Texas — December 2013 – February 2019
Data Center Systems Engineer II | IT, Data Center Services

Spearheaded management and execution of systems engineering processes in the Data Center Services department of the public research university with an enrollment of nearly 30,000 students. Delivered expert-level configuration support across assigned applications, resolution of production issues, and root cause analysis. Administered F5 BIG-IP Load Balancers in Edinburg and Arlington; Subject matter expert to a 40-node IBM iDataPlex High Performance Computing system under UT Brownsville. Utilized strong development skills to code multiple web applications that included MyAccount, a web tool used for the activation of UTRGV accounts, and features such as self-service password management and account unlocking functionality.

- Governed overall aspects of virtual infrastructure in a mission-critical environment, with a key focus on supporting VMware and Hyper-V infrastructure running on Cisco, Dell, and HP servers; coordinated and executed backup, replication, and recovery services for critical systems. Participated in 24/7 on-call rotations.
- Single handedly deployed more than 16 vendor applications per year as business requirements arose and procurements materialized, from hardware or virtual server deployment, to load balancing configurations, to software configuration.
- Fostered a state-of-the-art infrastructure environment through the adoption of cloud services such as Microsoft Azure to deploy storage systems, virtual machines, and a variety of applications in UT Brownsville.
- Developed internal tooling to facilitate daily tasks for the Data Center Services team.
- Praised for developing an innovative tool that automated provisioning of new student email accounts in Active Directory and Microsoft Office 365.
- Improved the functionality of Service Desk, a utility to aid in internal administrative functions relating to identity management.
- Led the efforts to implement High Availability solutions for UTRGV's web services and internal business systems.
- Improved critical services' monitoring and logging for infrastructure at UT Brownsville through the deployment of Splunk and other monitoring systems - providing immediate notifications of data center health and application issues.
- Delivered remarkable contributions in the consolidation of the information technology systems of UT Brownsville and UT Pan American into UT Rio Grande Valley.
- Recognized for exceptional performance and promoted to the role of Data Center Systems Engineer II following the merger of UT Brownsville and UT Pan American to form The University of Texas Rio Grande Valley in 2015.

Additional Experience

Research Scientist, University of Texas at Brownsville – Center for Gravitational Wave Astronomy
Graduate Teaching Assistant, University of Texas at Brownsville – Computer and Information Sciences
Research Assistant, University of Texas at Brownsville – Computer and Information Sciences
Web Designer, University of Texas at Brownsville – Physics & Astronomy
Teaching Assistant, University of Texas at Brownsville – Computer and Information Sciences

Education

Master of Science in Computer Science | University of Texas at Brownsville
Bachelor of Science in Computer Science | University of Texas at Brownsville

Professional Development

- Administering F5 BIG-IP Load Balancer Trainings.
- Microsoft Official Courses: Upgrading Your Skills to Windows Server 2016 (20743), Configuring Adv. Windows Server 2012 Services (M20412).
- Red Hat System Administration I and II (RH199, RH134) and Red Hat Linux Diagnostics and Troubleshooting (RH342)
- ITIL Foundations Certificate in IT Service Management (No. GR750207515LS).
- LIGO Scientific Collaboration member, 2013.
- Established my own LLC, SLZR.CLOUD, in order to provide freelancing Web Development and Hosting services.