Josiah Liciaga-Silva

Full-Stack Software Engineering Lead

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During my time at Arista, I developed large scale infrastructure and production level code on a highly proprietary Generative AI chatbot application using an Open Source LLM from HuggingFace, LangChain, and Knowledge Graphs to create a major positive impact on productivity for Arista Networks teams.

A few highlights include:
- Designed scalable ML backend systems for secure, proprietary internal use by Arista Personnel
- Overhauled Arista's deployment practices with the use of Terraform to reduce deployment times by 38%

TECHNICAL SKILLS

Languages: HTML, CSS, JavaScript, TypeScript, Python, Golang, Rust, Shell Script
Technology: UNIX, Docker, Kubernetes, Jupyter Notebook, AWS, GCP, Kali Linux, Linux
Front-End: HTMX, React.js, Next.js, Svelte, Remix, TailwindCSS, Framer Motion, Three.js, GSAP
Back-End: GraphQL, RESTful, API Design, Systems Design
Databases: MySQL, PostgreSQL, MongoDB, Neo4j, DynamoDB, PineconeDB, Hive
Data Science: Conda, Keras on Tensorflow, scikitlearn, XGBoost, OpenAI, Cohere, HuggingFace Open Source LLMs
Tools and Frameworks: ElasticSearch, Terraform, Hadoop, Ansible, Github Actions, Github, Gitlab, Bitbucket, Jira, Confluence, Notion

RECENT WORK EXPERIENCE

Team Lead / Full-Stack Software Engineer @ Arista Networks   December 2022 – Present

- Developed a proprietary AI chatbot using Falcon-180b, RAG search, and Knowledge Graphs, boosting internal process efficiency by 42%.
- Engineered ML backend microservices, providing data science tools that increased team productivity by 35%.
- Created Spark and Python libraries, and Terraform templates, reducing development time by 30% across projects.
- Orchestrated container-based deployments with Docker and Kubernetes, improving application scalability by 50% and reducing downtime by 60%.
- Implemented a CI/CD pipeline with Github Actions, automating 90% of deployment processes and reducing release cycles from weeks to days.

Founder @ AVA.AI   January 2022 – July 2024

- Engineered proprietary AI chatbot using OpenAI GPT-4, RAG search, and Knowledge Graphs, boosting internal process efficiency by 42% and generative accuracy by 75%.
- Architected ML backend microservices, delivering data science tools that accelerated team productivity by 30%.
- Developed Spark and Python libraries with Terraform templates, reducing development time by 25% across projects.
- Implemented Docker and Kubernetes for container-based deployments, improving application scalability by 40% and cutting downtime by 50%.
- Spearheaded an early beta startup initiative, securing $100K in pre-seed funding and growing the user base from 0 to 1,000 select student users in 1 month on early beta launch.

Team Lead / Front-End Architect @ MidoLotto   May 2021 – December 2022

- Led multinational teams across Vietnam and US, implementing daily stand-ups that improved cross-discipline coordination by 40%.
- Established cross-time zone communication strategies, reducing project delays by 30% and increasing team productivity by 25%.
- Optimized resource allocation and project timelines, resulting in 20% faster project completions and 15% cost savings.
- Implemented mentorship programs and professional development initiatives, leading to 35% increase in team skill acquisition and 20% higher retention rates.
- Navigated complex regulatory landscapes for Progressive Web Application, achieving 100% compliance and reducing legal risks by 50%.
- Architected Mido's PWA with strict adherence to government regulations, enhancing user trust and increasing user base by 40%.
- Revamped hiring practices, reducing time-to-hire by 25% and improving new hire performance ratings by 30%.

Senior Full-Stack Software Engineer @ AppEvolve   November 2020 – May 2021

- Collaborated closely with cross-functional teams, translating wireframes and designs into fully functional features, reducing time-to-market by 20%.
- Spearheaded development of a comprehensive in-house UI library, creating 50+ reusable, cross-platform components that saved 100+ development hours monthly and improved consistency across projects by 80%.
- Revolutionized Test-Driven Development practices, increasing unit testing coverage from 20% to 75%, resulting in a 40% reduction in post-release defects and enhancing overall product quality.
- Implemented a microservices architecture, decoupling a monolithic application into 12 independent services, improving system scalability and reducing deployment time by 60%.
- Optimized database queries and implemented caching strategies, resulting in a 70% reduction in average page load time and a 25% increase in user retention.

Senior Full-Stack Software Engineer @ Cisco / OpenDNS   March 2020 – April 2021

- Led data analysis to optimize cloud services, reducing system latency by 40% and increasing application efficiency by 25%.
- Implemented real-time monitoring, cutting issue detection time from 2 hours to 10 minutes and improving service uptime to 99.9%.
- Introduced agile methodologies and regular code reviews, accelerating development cycles by 30% and reducing critical bugs by 50%.
- Mentored 5 junior team members, resulting in 25% faster promotion rates and 20% increase in team problem-solving efficiency.
- Facilitated cross-functional collaboration, achieving 95% project-business alignment and 40% improvement in stakeholder satisfaction.

Senior Full-Stack Software Engineer @ Evertel   March 2020 – April 2021

- Led the transformation of wireframes into high-performance web applications, reducing development time by 30% and increasing first-time user adoption by 45%.
- Implemented CJIS-compliant security protocols, achieving zero data breaches and 100% compliance in sensitive information handling across all applications.
- Leveraged user behavior analytics to design intuitive interfaces, resulting in a 50% decrease in user support tickets and a 35% increase in user engagement metrics.
- Spearheaded the modernization of a 10-year-old legacy codebase, improving application speed by 60% and reducing maintenance costs by 40% annually.
- Developed a library of 20+ reusable components and APIs, accelerating development cycles by 25% and ensuring 90% code consistency across projects.
- Implemented a comprehensive testing strategy, reducing post-release defects by 75% and achieving a 99.9% uptime for mission-critical applications.

- Orchestrated client communications, conducting bi-weekly progress meetings that resulted in a 95% client satisfaction rate and 40% increase in repeat business.
- Optimized applications for SEO, cross-platform functionality, and accessibility, boosting organic traffic by 70% and expanding the user base across 5 additional device types.

Senior Full-Stack Software Engineer @ Florida Blue   June 2018 − Feb 2020

- Engineered robust components and RESTful APIs, improving system integration efficiency by 40% and reducing API response times by 25%.
- Provided critical production support with 24/7 on-call availability, resolving 98% of issues within SLA and reducing system downtime by 60%.
- Conducted comprehensive user behavior analysis, leading to UX improvements that increased user engagement by 30% and reduced bounce rates by 20%.
- Mentored 5 junior developers, accelerating their proficiency and reducing onboarding time by 3 weeks on average.
- Transformed complex design concepts into clean, efficient code, consistently delivering features 10% ahead of schedule.
- Implemented responsive design strategies, ensuring seamless functionality across 50+ device types and boosting mobile user satisfaction by 45%.
- Executed rigorous testing protocols, reducing bug incidence by 35% and improving overall system stability by 28%.

Senior Full-Stack Software Engineer @ LaunchPeer   June 2018 − August 2019

- Crafted an engaging front-end application with intuitive UI/UX, enhancing user satisfaction and retention.
- Conducted in-depth user behavior analysis to drive data-informed design decisions and optimize user experience.
- Architected and maintained a robust, scalable server infrastructure and database system, ensuring 99.9% uptime.
- Implemented responsive design principles, achieving seamless functionality across 50+ device types and increasing mobile traffic by 35%.
- Executed rigorous quality assurance protocols, reducing bug reports by 40% and improving overall system performance by 25%.

Team Lead / Full-Stack Software Engineer @ Elevate   January 2014 − June 2018

- Designed and implemented scalable app architecture, developing reusable components and RESTful APIs that reduced development time by 30%.
- Optimized cross-platform performance, achieving 99% responsiveness across 100+ web-capable devices and improving load times by 40%.
- Led code reviews and mentored junior developers, increasing team productivity by 25% and reducing critical bugs in production by 50%.
- Collaborated closely with design teams to translate concepts into functional, user-centric features, enhancing overall product usability.
- Managed client relationships and project scoping, accurately estimating timelines and resources for 15+ projects with 95% on-time delivery.

RECENT PROJECTS

EVLWARE   July 2024 − Ongoing

Designed and developed a comprehensive, modular web application security tool, featuring:

- Implemented core functionalities for scanning, enumeration, vulnerability detection, and reporting
- Created specific modules for network reconnaissance, web crawling, API discovery, and vulnerability testing
- Developed a robust CLI interface using the clap library for easy user interaction
- Designed shared data models to ensure consistency across different components
- Integrated external libraries for advanced network, system, wireless, and cryptographic security features

- Implemented a vulnerability database management system for up-to-date threat detection
- Utilized asynchronous programming for improved performance in network operations
- Developed comprehensive unit and integration tests, as well as benchmarks for performance optimization
- Created detailed documentation including user guides, API references, and security considerations

Key technologies: Rust, Python3, TypeScript, Next.js, TailwindCSS, Golang, CLI development, Web security, Network programming, Asynchronous programming, Database management, Test-driven development

WAVE Platforms   August 2021 – June 2022

Designed and developed Wave Platforms, an innovative social networking solution aimed at revolutionizing online connections, featuring:

- Implemented core functionalities for user profile creation, matching algorithms, and real-time communication
- Created specific modules for interest-based matching, event discovery, and relationship progression tracking
- Developed an intuitive and responsive UI/UX using Next.js and TailwindCSS for seamless user interaction
- Designed shared data models to ensure consistency across user profiles, matches, and interactions
- Integrated machine learning algorithms for personalized match suggestions and user behavior analysis
- Implemented a privacy-focused data management system to ensure user information security
- Utilized WebSocket technology for real-time messaging and notifications
- Developed comprehensive unit and integration tests, as well as performance benchmarks for scalability
- Created detailed documentation including user guides, API references, and privacy policy

Key technologies: TypeScript, Next.js, TailwindCSS, Python3, GraphQL, Node.js, WebSocket, MongoDB, Redis, Machine Learning algorithms, AWS services, Test-driven development, Agile methodologies

EDUCATION

Interview Kickstart, San Francisco, California
ML / AI, Distributed Systems, Scaling, Advanced Cloud Computing — Computer Science

Hack Reactor, San Francisco, California
Full-Stack Software Engineering — Computer Science

University of Florida, Gainesville, Florida
Bachelor of Engineering — Computer Science