

Nelson Samayoa | Software Developer

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Senior Full-Stack Software Engineer with 16+ years of experience designing and building scalable applications, developer platforms, and cloud-native systems. Expertise spans .NET, React, Angular, TypeScript, Azure, AWS, mobile development, and DevOps. Proven track record owning the full product lifecycle from architecture to production release, as well as leading engineering teams and test automation initiatives. Fluent in English and Spanish, with proficiency in Japanese and French.

EDUCATION

Bachelor of Science Computer Science Oregon State University

Bachelor of Arts in Spanish Portland State University

CORE TECHNOLOGIES

Frontend: React, Angular, TypeScript

Backend: .NET, C#, REST APIs, SQL Server, Node.js

Mobile: React Native, Flutter, Ionic

Cloud: Azure, AWS, Event-Driven Architecture

DevOps & Quality: CI/CD, Test Automation

WORK EXPERIENCE

Software Engineer | Entacit LLC

Remote *Apr 2022 - Nov 2026*

Full-stack developer delivering web, mobile, and desktop applications for an education platform using React Native, Angular, Electron, and .NET Core.

- **Mobile development:** Core developer on a React Native (TypeScript) app from its inception: data management UI for users downloaded content, QR code scanning allowing users to easily connect with each other, deep links so account management links in emails open the app, iOS development/testing, and build pipeline setup (dev/staging/prod iOS schemes). Owned multiple React Native major upgrades, built custom components to replace unmaintained dependencies and libraries, owned a complete UI/UX redesign of the app, forced-update flow, parent/teacher/manager views, and cross-platform media playback reliability. Create automated Mobile UI tests using Maestro for smoke testing.
- **Desktop development:** Took ownership of the building and maintenance of our Electron (React + Node.js) application including features such as tabs support, reliable image rendering (FastImage), dependency upgrades, and robust handling of unsupported file types and external links. This product enables teachers to present course content in a controlled and safe manner via deep links or drag & drop onto the app.
- **Web development:** Gathered requirements directly from the customer and developed major features on the Angular web app: QR code generation, CSV generation and upload (with data-integrity handling for empty values), and video testing features allowing students to take tests and have their answers recorded on video. The feature included Safari support and audio/video

device testing, quality evaluation reports with permission-gated access, tags system, and horizontal stepper/form-component library work. Performed Angular version upgrades and set up build and release pipelines in Azure DevOps.

- **AI development:** Using Azure's OpenAI and Speech APIs, created an AI chat bot designed for English language learning; also worked with Google's Gemini API and Rive animations during prototyping. Built a pronunciation component with recording-loss prevention, error indicators, and resume-attempt handling for speech evaluation.
- **Backend development:** Using C# .NET Core, Entity Framework, and MS SQL, built REST API features including student points/rewards system, bulk operations (session delete/cancel, student username updates, bulk tag and custom-field uploads), custom fields with full CRUD + CSV import/export, course cloning, email notifications with timezone handling, password policy and forgot-password/username flows, and a full-stack student/parent account-deletion flow supporting data-protection compliance.

Software Engineer | Imagine Learning

Remote *May 2021 - Mar 2022*

Full-stack engineer on an LMS platform, building learner experiences, reporting tools, backend services, and cloud-native event-processing systems using C#, React, TypeScript, AWS, PostgreSQL, and related technologies.

- **Web Development:** Developed React applications for an LMS platform, including a highly customized progress-reporting tool with complex data visualizations, dynamic layouts, and advanced styling that enabled managers to track employee training progress.
- **Performance Engineering:** Participated in a large-scale performance initiative, identifying and implementing frontend and backend optimizations that improved application responsiveness, scalability, and overall user experience across the platform.
- **Cloud Architecture & Distributed Systems:** Owned the design and implementation of an AWS-based event-driven systems for processing student and application events. Developed scalable architecture patterns that enabled asynchronous processing and integration between platform components.

Software Engineer | Paylocity

Remote *Mar 2020 - May 2021*

Full-stack engineer on a Learning Management System (LMS) platform serving online learning experiences and course management. Contributed to web, mobile, backend, and distributed-system development supporting course discovery, registration, content delivery, and learner engagement. Worked across React, Ionic with Angular, .NET, RabbitMQ, SQL Server, AWS, and Azure while helping design the architecture.

- **Mobile Development:** Developed Ionic (Angular) mobile application features including course catalog browsing, search functionality, multi-criteria filtering, and user experience enhancements designed

to improve course discovery and learner engagement.

- **Web Development:** Developed and maintained user-facing learning experiences within the LMS platform using React and Angular. Built new user interfaces, enhanced existing workflows, and contributed to the Learning module within the broader Paylocity suite.
- **Backend & Distributed Systems:** Implemented RabbitMQ-based background services and work processors to distribute workloads and execute tasks asynchronously, replacing API-bound processing that had become a scalability bottleneck as demand grew. This message-driven architecture improved performance, throughput, and system scalability across the learning platform.
- **Architecture & System Design:** Authored architecture documentation for a cross-platform learning solution utilizing React web clients, Angular/Ionic mobile applications, C#/.NET APIs, SQL Server, RabbitMQ messaging, and AWS storage services. Collaborated on system design decisions spanning the full application stack.

Software Engineer | DriveTime

Tempe, AZ May 2018 - Feb 2020

Full-stack engineer responsible for customer-facing web and mobile applications, public APIs, and cloud-native Azure solutions. Contributed to DriveTime.com and Bridgecrest.com, helped establish Angular frontend standards, designed scalable event-driven systems, and supported security initiatives including API authentication and Azure Active Directory modernization.

- **Web Development:** Full-stack development for DriveTime.com and Bridgecrest.com using Angular, TypeScript, C#, and .NET technologies. Introduced Angular Material into an existing Angular application and established UI/UX, performance, and code-quality standards. Contributed to multiple web applications and maintained legacy jQuery and KnockoutJS systems while supporting modernization efforts. Implemented credit request wizard on public facing DriveTime.com site. This feature enabled customers to get an instant answer about their ability to buy a car, rather than having to wait for a separate financial institution to tell them.
- **Mobile Development:** Gathered requirements and gathered data directly from the end user in order to develop mobile applications using Ionic with Angular.
- **API & Backend Development:** Contributed to the design and implementation of a public-facing GraphQL API built with C#/.NET for external consumers. Participated in architecture discussions, developed proof-of-concepts, and implemented the API authentication model. Developed REST-based services and backend functionality supporting customer-facing applications.
- **Cloud Architecture & Distributed Systems:** Architected and implemented event-driven Azure solutions using Azure Functions, Service Bus, Queues, Topics, Blob Storage, and Azure Active Directory. Designed systems for automated vehicle-image processing and vehicle-value analysis,

leveraging serverless and message-driven architectures to improve scalability and reliability. The previous system relied on calculations performed semi-manually using less accurate data. This feature saved the company in costs and employee time, and also increased revenue by better understanding the price at which to acquire stock.

- **Identity & Security:** Took ownership of and led the migration of legacy products to Azure Active Directory authentication using OpenID Connect. Contributed to authentication and authorization architecture for externally consumed APIs, helping improve security and identity management across platforms.

Software Development Engineer in Test (SDET) Team Lead | iPro Tech

Tempe, AZ Jan 2017 - Mar 2018

Technical lead for automation engineering, responsible for team leadership, framework architecture, and test infrastructure. Designed and maintained an enterprise automation platform used across development teams, including CI/CD integration, reporting, distributed test execution, and developer tooling. Earned three performance awards and achieved two product certifications within two months of joining the company while leveraging C#, Selenium, SpecFlow, PowerShell, Azure DevOps (VSTS/TFS), and JavaScript.

- **Test Automation Leadership:** Led an automation engineering team, managing sprint planning, delivery, and priorities within Agile/Scrum processes using Jira. Directed the modernization of the company's automation strategy by leading a large-scale migration from the deprecated Microsoft CodedUI framework to SpecFlow BDD and White UI Automation, reducing tooling and maintenance costs while improving test maintainability. Also designed and owned a company-wide dashboard that provided visibility into automated test suite health and progress across products and teams.
- **Automation Framework Development:** Designed and implemented core features for a C#-based test automation platform, including Entity Framework-backed test-result logging, reporting infrastructure, asynchronous multi-browser execution, and distributed test execution across multiple agents. Improved scalability and execution efficiency for automated testing across product teams.
- **Internal Tools & Applications:** Developed internal support and reporting applications using C#, WinForms, JavaScript, and Team Services APIs. Built a multithreaded diagnostic utility that enabled support teams to quickly troubleshoot customer environments and created a web-based dashboard that visualized test health and quality metrics from TFS data using Google Charts.
- **DevOps & Infrastructure:** Managed build and test infrastructure using Team Foundation Server (TFS) and PowerShell automation. Maintained automated test environments and deployment processes to support continuous validation efforts across multiple development teams.

Software Engineer & SDET Team Lead | Dell Inc

Remote Jul 2012 - Jan 2017

Progressed from Software Engineer to Automation Engineering Lead, developing enterprise applications, developer tooling, CI/CD infrastructure, and automated testing systems. Led and mentored a team of five engineers, supporting multiple product organizations through DevOps, automation, and quality initiatives in a fully remote environment. Received the Dell Champion Award in 2015.

- **Desktop & Enterprise Application Development:** Developed and maintained internal and customer-facing applications using C#, WinForms, ASP.NET, IIS, Windows Services, and Web Services. Built a support-focused command-line utility that automated the collection of diagnostic data from Windows, SQL Server, and Active Directory environments, reducing manual investigation effort, lowering support costs, and improving customer satisfaction. Also developed a WinForms reporting application for viewing historical security-policy snapshots via a REST API and later supported customers through the product's sunset phase with maintenance, bug fixes, and knowledge transfer.
- **Customer support and Sales Engineering:** Was one of the principal tech points of contact for our biggest customers such as Disney. Communicated frequently to gather requirements for feature requests, debug discovered bugs, and to lead training sessions of the use of the product and eventually on the code itself as part of a change of ownership of the product.
- **Test Automation Leadership:** Led the automated test development team consisting of five engineers, managing sprint planning, delivery, and stakeholder reporting using Azure DevOps (formerly VSTS). Established and expanded automated testing practices across product teams, including UI automation, API testing, load testing, and security-focused testing initiatives.
- **Developer Enablement & Training:** Mentored developers and test engineers on automation frameworks and quality engineering practices, delivering training on Microsoft CodedUI, Selenium, API automation, performance testing, and security and penetration testing methodologies.
- **DevOps & Continuous Integration:** Owned the build and test infrastructure supporting multiple product teams. Designed and maintained CI/CD systems, build servers, automated test environments, PowerShell-based automation, on-premises TFS/VSTS integrations, and Azure Virtual Machine environments used for automated validation and release processes.

Software Engineer Intern | Intel Inc

Hillsboro, OR Sep 2010 - Jul 2012

Software engineer responsible for the development of an internal IDE and enterprise test automation platform. Built developer-facing tools, framework extensions, device-integration plugins, and web-based management applications while serving as a technical resource for SDETs and engineers. Regularly trained users, resolved automation challenges, and improved the scalability and reliability of testing systems.

- **Developer Tools & IDE Development:** Built and maintained an internal IDE used by SDETs to develop and debug automated tests. Implemented support for processing XML files larger than available RAM, allowing users to load files for data input. Also owned and implemented persistent breakpoint storage, and JavaScript language tooling including syntax highlighting and autocomplete.

- **Test Automation Infrastructure:** Extended the automation platform through custom plugins and framework integrations, including Linux SSH command execution, Wake-on-LAN support, battery-state monitoring via WMI, and automated Cisco access point testing through an SSH abstraction layer.
- **Web Applications:** Developed an ASP.NET (Razor) web interface for remotely managing automation runs, execution environments, and framework operations.
- **Automated Testing:** Developed and maintained automated test suites for Bluetooth-enabled devices, leveraging the internal automation framework to create reliable, repeatable validation of device functionality and connectivity scenarios. Worked directly with SDETs to troubleshoot test failures, improve test reliability, and enhance framework capabilities.

PERSONAL PROJECTS

Language Learning Mobile Applications in Flutter

Designed, developed, and published three cross-platform grammar-learning applications for Japanese, Korean, and Serbo-Croatian on the Apple App Store and Google Play Store.

- Led product direction, feature design, and UI/UX strategy
- Partnered with a designer to create a polished and intuitive learning experience
- Mentored a junior developer who contributed to implementation
- Built the applications using Flutter with a lightweight offline-first architecture that avoided backend dependencies, enabling fast performance and simplified maintenance
- Managed the complete software lifecycle including requirements, development, testing, app store releases, user feedback, and ongoing updates.