

NILAY KHANDELWAL

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Software engineer with 14+ years building high-scale, low-latency systems in ad tech and distributed platforms. Focused on system design, performance, reliability, integrations (SSP/DSP), and analytics/automation tooling. Lead production support and incident response.

SKILLS

Distributed Systems & Architecture: High-scale, low-latency serving systems; distributed platform design; event-driven architectures; in-memory serving caches/entity lookups; aggregation pipelines; edge/CDN delivery; SSP/DSP integrations

Data & Real-Time Systems: MongoDB, Redis, Microsoft SQL Server, Apache Druid, Amazon Kinesis, RabbitMQ

Cloud & Infrastructure: Azure App Services, AWS (EC2, S3, Kinesis), Cloudflare, Docker, Terraform

DevOps / CI/CD / Observability: TeamCity, GitHub, New Relic, Kibana, Git

Languages: C#, SQL, JavaScript, Python, Java, PHP, VB.NET

WORK EXPERIENCE

Senior Software Engineer

AdSupply Inc

June 2011 - Present

Culver City, CA

Senior engineer on a real-time ad exchange and serving platform, focused on distributed systems, low-latency delivery, production reliability, and fraud mitigation. Contributed to .NET Framework to .NET Core modernization across a hybrid cloud environment (Azure and AWS).

- Optimized the core ad exchange and serving platform and contributed to .NET Framework to .NET Core modernization.
- Supported low-latency ad delivery at scale (approx. 1B+ daily requests; sub-100ms responses), integrating with multiple SSPs and DSPs.
- Tuned critical data paths with MongoDB and Redis, improving maintainability and performance of hot codepaths.
- Implemented pub/sub messaging to propagate database updates to live serving nodes, enabling in-memory entity lookups and reducing database reads on the request path.
- Improved reliability with production safeguards, including Cloudflare-based controls to mitigate traffic anomalies and overload.
- Enhanced observability via New Relic instrumentation/configuration and operational diagnostics (including Kibana).
- Owned fraud mitigation initiatives within the delivery pipeline to improve traffic quality and revenue integrity.
- Originated the Web Push ad format concept; built the initial prototype and early integrations; led subsequent team expansion.
- Owned ad unit delivery scripts and ad tags across browsers and partner constraints; led content-blocker compatibility work to improve delivery under common blocking techniques.
- Built internal tooling and automation: ASP.NET Core apps, JavaScript analytics utilities, and Druid-based tracking and aggregation workflows.
- Led support engineering and production issue resolution; participated in incident response/on-call and drove code/design reviews with senior engineers.

Selected initiatives: Adblock compatibility; compliance-driven flow and parameter changes; cross-browser tag debugging; overload and timeout mitigation; observability and runtime diagnostics improvements.

Software Engineer (Concurrent)

EventSorbet

December 2011 - April 2013

Santa Monica, CA

An early-stage startup developing an event management platform, I worked as a Software Engineer, primarily focused on building and enhancing core platform features.

- Collaborated with the founding team on the initial setup of the platform stack using ASP.NET MVC, NHibernate ORM, JavaScript/jQuery for the UI, and Git for version control, ensuring efficient development and collaboration.
- Developed and optimized the event search feature, which became the primary method of interacting with the platform.
- Integrated Stripe payment service to enable credit card checkout, manage subscriptions, and streamline event vendor payouts, reducing manual processing for the internal team.

Student Programmer

University of Southern California

October 2010 - May 2011

Los Angeles, CA

Worked at the School of Pharmacy developing in-house custom web and database applications in VB.NET.

- Developed a time tracking system for employees, enhancing operational efficiency.
- Maintained, tested, and documented code for internal employee support applications.

Associate Intern

OnGreen

May 2010 - August 2010

Los Angeles, CA

Joined a Series A startup focused on building an online platform to help green startups connect with investors and raise capital.

- Collaborated with offshore engineering team to test and resolve platform bugs.
- Set up and managed a support ticketing system using osTicket on a managed LAMP stack server.
- Configured and maintained a phpBB user forum on the LAMP stack to facilitate interaction between platform stakeholders.

EDUCATION

M.S. in Computer Science

University of Southern California

2009 - 2011

Los Angeles, CA

B.Tech. in Computer Science Engineering

Jaypee Institute of Information Technology

2005 - 2009

NOIDA, India