

NILAY KHANDELWAL

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Software engineer with 14+ years building and operating high-scale, low-latency ad tech and distributed platforms (approx. 1B+ daily requests, approx. sub-100ms responses). Focused on system design, production reliability and incident response, integrations (SSP and DSP), and automation tooling.

SKILLS

Distributed Systems & Architecture: High-scale, low-latency serving systems; microservices; distributed platform design; event-driven architectures; in-memory serving caches/entity lookups; aggregation pipelines; edge/CDN management; 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#, ASP.NET Core MVC, SQL, JavaScript, Knockout, jQuery, 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 delivery, low-latency performance, fraud mitigation, and production reliability, including monolith-to-microservices modernization.

Senior Software Engineer and Lead Support Engineer

2020 - Present

- Contributed to .NET Framework to .NET Core efforts, completed on-prem to cloud-native migration, and decomposed monolith components into microservices.
- Originated the Web Push ad format, built the initial prototype and early integrations, and led expansion of the format.
- Led production support and incident response, implemented Cloudflare edge controls, and enhanced diagnostics with New Relic and Kibana.
- Owned fraud mitigation initiatives within the delivery pipeline to improve traffic quality and revenue integrity.
- Implemented a rules engine microservice for real-time tracking (Apache Druid) and automated campaign management, reducing manual interventions for account managers and clients.

Software Engineer II / Lead Support Engineer

2014 - 2020

- Led ad delivery compatibility work under common AdBlock and content-blocker techniques, owned ad unit scripts and tags across browser and partner constraints.
- Tuned request-path data flows with MongoDB and Redis, improving hot codepaths for performance and maintainability.
- 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.
- Served as escalation point for complex production issues, bridging client-side tag behavior and backend delivery logic, and drove code and design reviews.

Software Engineer

2011 - 2014

- Helped start the platform on a new stack, delivered customer-facing interfaces, and built reporting and analytics workflows.
- Built SQL-based reporting and analytics workflows to support business and operational needs.
- Expanded and maintained ad unit delivery scripts and tags as platform scope and partner integrations grew.

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