

AJ Below

Software Engineer | Brooklyn, NY
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Summary

Full stack software engineer with 6 years of experience building scalable backend services and data pipelines. I'm experienced with JavaScript/TypeScript ecosystems and developing NestJS APIs and React applications, with hands-on experience working with Clickhouse, MySQL, and PostgreSQL databases for high-volume data pipelines. Working in fast-paced startup environments has honed my skills in mentorship and team building, which I'm excited to bring to any engineering organization, large or small. Beyond writing code and designing software, I take pride in fostering collaborative culture and being a positive presence who helps teams grow stronger together, both technically and personally.

Experience

Surfside | Software Engineer (2020–2023) → Senior Software Engineer (2023–2026)

Leading AdTech company in the Cannabis space

- Joined as Surfside's first engineering hire and played a key role in scaling both the engineering team through 8x company growth, mentoring new hires and defining technical architecture.
- Drove full backend rewrite from JavaScript/Fastify to TypeScript/NestJS, contributing the majority of commits to establish widespread input validation, ensure code maintainability, and improve debugging experience for the engineering team.
- Spearheaded API integrations with dozens of point-of-sale and CRM partners using Python, handling diverse data formats and authentication methods to power Surfside's unified data platform, with data going to Clickhouse.
- Led design and implementation of data pipelines using Kafka and Clickhouse materialized views to process 100K+ daily point-of-sale orders from hundreds of client storefronts, powering automated reporting and targeted audience creation.
- Architected full stack self-service analytics dashboards (React + Clickhouse) that gave clients direct access to their sales and customer data insights, eliminating dependency on manual reporting.
- Led development of product data pipelines that integrate with point-of-sale systems to power Surfside's retail media offering, redesigning stock-status resolution to run off live partner data instead of static resolved lists — taking sponsored carousel fill rate from ~30% to ~90%.
- Architected backend creation flows for product carousel advertising units, streamlining campaign setup and creative management for retail media placements.
- Built end-to-end audience management feature allowing clients to securely import external data, create custom audience segments, and launch targeted advertising campaigns through intuitive builder and analytics interfaces, used by hundreds of clients on campaigns with millions of dollars in ad spend.
- Rebuilt on-demand audience targeting platform from convoluted legacy system into modular, user-friendly interface, integrating advertising, eCommerce, POS, and CRM data sources and driving increased adoption with hundreds of audiences created across dozens of top advertisers.
- Mentored multiple junior engineers through the onboarding process, establishing coding standards and documentation practices while cultivating collaborative culture focused on constructive feedback and continuous learning.
- Built and maintained CI/CD workflows across multiple repositories, streamlining deployments to Kubernetes clusters and enabling faster, more reliable releases for the development team.

Education

University of Michigan, Ann Arbor | BA 2015–2019

Codesmith | Full-stack coding intensive | 2020

Technical Skills

JavaScript, TypeScript, Python, Node.js, NestJS, Clickhouse, MySQL, PostgreSQL, React 18, CSS/SASS, Docker, Kubernetes, AWS (EC2, S3, RDS), GitLab, Agile development, OAuth, ZSH, REST, TDD

AI-Assisted Development: Claude Code, Cursor

Interests

Trying new places in my neighborhood (love Bed Stuy!), parenting my two kittens (Rocky and Jojo), taking snapshots with my film or vintage digital cameras, Real Housewives, Playstations 1-5, rewatching a Wes Anderson film for the nth time, tending to my Plex server, the fiction of Henry James, playing my guitar, bass or autoharp, obsolete technologies of all kinds, and lately, hopping on my new stationary bike. Last but not least, the Simpsons.