

ZACHARY NUSBAUM

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Letter of recommendation available by request.

TECHNOLOGY LEADERSHIP & CLOUD SOLUTIONS ARCHITECTURE

Innovative and results-driven technical leader with a proven track record in full-stack development, cloud solutions architecture, and data-driven decision-making. Adept at designing and executing large-scale software systems, optimizing IT infrastructure, and leading high-performing engineering teams. Passionate about leveraging technology to drive operational efficiency, business growth, and scalable solutions. Skilled in balancing technical expertise with strategic oversight, ensuring alignment between technology initiatives and business objectives.

CORE COMPETENCIES

Cloud Architecture • Full-Stack Application Development • Data Engineering & Analytics • Marketing and Ad Optimization • IT Systems Administration • Agile Project Leadership • Business Intelligence (BI) & Reporting • AWS & Azure Solutions • Process Automation & Optimization • Cross-Functional Team Leadership

CAREER HIGHLIGHTS

- **Cloud & Data Architecture Leadership:** Designed and implemented a large-scale data processing system using Apache Spark, AWS EMR, and Amazon Athena, enabling real-time analytics and improving data integrity for business intelligence.
- **Business-Critical AI Solutions:** Developed an AI-powered anomaly detection system to prevent financial discrepancies, saving significant costs by identifying overpayment errors before processing.
- **Enterprise Software Modernization:** Spearheaded the migration of outdated IT infrastructure to modern cloud-based solutions, improving system efficiency, reliability, and scalability.
- **Strategic Problem-Solving & Innovation:** Created a content-filtering system that retained key clients such as Apple Music by ensuring brand safety, securing long-term revenue and new business opportunities.
- **Custom In-House Applications:** Built proprietary business applications, including an automated hiring system, a call routing and voicemail transcription service, and a customer support portal, enhancing workflow automation and operational efficiency.

PROFESSIONAL EXPERIENCE

Owner and Lead Developer/Designer

2024 – Present

ZDN Enterprises, LLC (dba Sunlit Bytes), San Diego, CA

Founded and operate a multidisciplinary technology and creative services company specializing in full-stack software development, cloud architecture, and custom product design. Serve clients across various industries by delivering tailored digital solutions, from enterprise-grade applications to personalized physical products. Combine technical expertise with artistic tools to offer a unique fusion of software engineering, automation, and handcrafted design.

- **Custom Software Development:** Design and build full-stack applications and websites using modern frameworks (LAMP, MERN, Python, serverless). Provide scalable solutions for business process automation, API integration, and digital transformation.
- **Cloud Solutions & IT Consulting:** Offer cloud infrastructure design and support, including AWS-based architectures, IT security consulting, workflow automation, and custom data pipelines.
- **3D Modeling & Printing:** Create custom 3D designs for both practical and artistic applications. Produce high-resolution resin prints and durable filament prints for prototypes, parts, or personalized items.
- **Custom Fabrication & Product Design:** Utilize Cricut Maker 3 and sublimation printing technologies to design and produce high-quality, personalized merchandise and promotional items, including apparel, drinkware, signage, and branded collateral for small businesses and events.
- **Contract-Based Enterprise Services:** Provide on-demand support for projects aligned with previous roles, including BI/reporting, advertising tech, cloud migrations, internal tool development, and team leadership.

Technology and Cloud Solutions Director

2024 – Present

Pincanna, Farmington Hills, Michigan (Working Remote from San Diego, California)

Oversee the technology strategy and infrastructure of a multi-location dispensary chain, managing all aspects of cloud computing, IT security, and business applications. Spearhead software development and process automation initiatives to

enhance efficiency, security, and operational scalability.

- **Enterprise IT & Cloud Solutions:** Designed and implemented a hybrid cloud infrastructure, improving system reliability and data security. Migrated core business applications from Google G-Suite to Microsoft 365 and Exchange Server to enhance communication and data integrity.
- **Custom Software Development:** Developed multiple proprietary applications, including:
 - An automated phone system that routes calls based on the caller's location and transcribes voicemails for executives.
 - A cloud-based job application and candidate tracking system used in-store and at hiring events.
 - An internal rewards and customer management system to enhance customer retention and engagement.
- **Website & Digital Presence Management:** Designed, built, and maintained the company's WordPress-based website, incorporating AWS Lambda for added functionality. Improved SEO and analytics tracking, resulting in higher customer engagement.
- **Cybersecurity & IT Governance:** Established IT security policies, data access controls, and employee credential management systems to protect company and customer data.
- **Business Process Optimization:** Automated routine IT and HR functions, reducing manual workload and increasing operational efficiency.

Engineering Manager | Technical Lead | Senior Software Engineer

2019–2024

Bandsintown Group/Tonefuse., San Diego, CA

Led the development, architecture, and implementation of large-scale software systems for a leading digital advertising platform specializing in music and video streaming services. Advanced from Senior Developer to Technical Lead, overseeing engineering teams and directing key projects.

- **Cloud Infrastructure & Data Engineering:** Designed and implemented a scalable data pipeline using Apache Spark, AWS EMR, and Amazon Athena, allowing real-time processing and visualization of advertising performance metrics.
- **Online Advertising:** Developed proprietary algorithms for hyper-targeted ad campaigns, enabling precise audience segmentation. For example, the system identified websites and products popular among Taylor Swift fans, allowing the artist to run highly effective ticket sales campaigns tailored to that audience.
- **Revenue-Saving AI Solutions:** Developed an AI-powered anomaly detection system that identified discrepancies in financial data, preventing accounting errors and saving the company significant losses from overpayments.
- **Brand-Safety & Compliance Innovation:** Architected an automated ad filtering system that ensured Apple Music ads did not display alongside inappropriate content. This secured Apple as a long-term client and expanded revenue from Apple Music Japan.
- **Agile Team Leadership:** Managed a cross-functional development team, coordinating work streams, setting sprint goals, and ensuring timely delivery of technical solutions. Collaborated closely with product managers to align engineering efforts with business objectives.
- **Business Intelligence & Reporting:** Overhauled the internal BI system, replacing an outdated data processing system with a highly efficient big data solution that enabled executives, clients, and accounting teams to make data-driven decisions.

Lead Web Developer

2017–2021

EuroAmerica Design, Troy, MI

Designed, developed, and maintained digital solutions for a luxury home furnishings retailer. Provided IT support and digital marketing strategies that enhanced brand visibility and customer engagement.

- **E-Commerce & Website Development:** Built and maintained the company's e-commerce platform, optimizing customer experience and ensuring mobile responsiveness.
- **IT Infrastructure & Support:** Managed internal IT systems, including email servers, cybersecurity protocols, and network infrastructure.
- **Digital Marketing & SEO:** Led digital advertising efforts, utilizing Google Analytics, SEO strategies, and Facebook marketing to increase online visibility and sales.

Freelance Web Developer

2018–2019

Self Employed

Provided custom software development and IT consulting for small businesses, focusing on workflow automation, digital transformation, and customer-facing applications.

- **Custom Business Solutions:** Developed a customer check-in kiosk for an iPhone repair shop, streamlining service operations and reducing wait times. Built an automated HR onboarding system that provisioned new employee accounts, reducing administrative workload. Created an online customer support portal with seamless third-party integrations to improve ticketing and response times.

- **Cloud & IT Consulting:** Assisted businesses in migrating to cloud-based infrastructure, setting up email systems, and implementing cost-effective IT solution

Research Assistant & Professional Aide

2013–2017

Michigan State University – CREATE for STEM Institute

Assisted in data collection and software development for STEM education research projects. Developed software tools for classroom activity analysis, supporting nationwide curriculum improvements. Managed data processing and statistical programming to analyze teaching methodologies. Built a web-based data collection system to streamline research workflows.

EDUCATION

Bachelor's Degree in History, Philosophy, and Sociology of Science –*Michigan State University***Minor Degree:** Spanish Language & Romance Studies**Web Development Coursework** – *San Diego Mesa College***AWS Certified Solutions Architect – Associate** (*Renewal in Progress*)**React.js Essential Training****Human Subjects Research Certification****ADDITIONAL SKILLS & COMPETENCIES**

Programming Languages: Python, JavaScript, Ruby, PHP**Cloud & Infrastructure:** AWS (Lambda, S3, DynamoDB, EC2, Athena), Azur**Data & Analytics:** Apache Spark, Hadoop, MySQL, Business Intelligence Dashboard**Software Development:** Full-Stack Web Development (LAMP, MERN), Serverless Architecture**Process Automation:** AI/ML Integration, Workflow Optimization, IT Security & Compliance**Project Management:** Agile, Scrum, Cross-Functional Team Leadership