

ADITYA KAR

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SKILLS

- Programming Languages:** JavaScript, TypeScript, NodeJS, Python, C++, C, Java, Golang, Bash, PowerShell, PHP
- Authentication Protocols:** OIDC, SAML, OAuth, Kerberos, LDAP
- Frameworks & Libraries:** Express.js, Next.js, Nuxt.js, Angular, Vue.js, Flask, jQuery, React, D3.js, Leaflet, Bootstrap, Tailwind, Google Maps SDK, Vega-Altair, Chart.js, ApexCharts.js
- Databases:** PostgreSQL, MySQL, MongoDB, Oracle, SQL Server
- Gen AI:** LangChain, LLM: OpenAI GPT, GPT-3/4, Gemini, BERT, Hugging Face, Different AI Agents, Vector databases
- Containerization and Orchestration Tools:** Kubernetes, Docker, Helm package manager
- Cloud Technologies:** MS Azure, Amazon Web Services, Google Cloud Platform
- Hosting Platforms:** Vercel, Netlify, GitHub Pages
- Security Tools:** Splunk, Rapid 7, GitHub Advanced Security, Imperva, Palo Alto Firewalls, OKTA, Wireshark, Selenium, SonarQube, TruffleHog
- Regulatory Compliance:** PCI-DSS, CIS, GDPR, HIPAA, and CPA
- CI/CD Tools:** Jenkins, Azure DevOps, GitHub Actions
- Operating Systems:** Windows, Linux, MacOS
- Project Management Methods/Tools:** Agile, Scrum, Waterfall, Kanban, JIRA

EDUCATION

- University of Central Oklahoma - Bachelor of Science Aug 2017 – Dec 2022
- Major: Computer Science | Minor: Mathematics GPA: 3.20

EMPLOYMENT

Indiana University – Full Stack Web Developer

- Indianapolis, IN | Oct 2023 – Present | Full-Time
- Lead and mentor interns in software development and data science, guiding them through complex projects, promoting best practices in data structures and algorithms to enhance code efficiency, and ensuring successful, high-quality project delivery on schedule.
 - Tech lead for the multi-million-dollar SAVI redesign initiative, managing a cross-functional team of 15+ onshore and offshore developers across AI, backend (Golang), frontend (Vue.js), and SecDevOps (GitHub Actions). Drive agile development practices while actively contributing to coding and architecture decisions.
 - Architect and implement AI-enabled full-stack solutions using Azure OpenAI models (GPT-4o, text-embedding-3-large-np), integrating with APIs like SAVI Data, Microsoft Graph, and Esri REST to deliver intelligent automation and contextual search experiences.
 - Apply Object-Oriented Programming principles to design modular, scalable systems; utilize advanced data structures (trees, graphs, hash maps) and algorithms (sorting, dynamic programming) to optimize data processing, boosting query speed and application responsiveness by ~40%.
 - Build and execute testing strategy across SDLC, using Test-Driven Development (TDD) for unit testing (Vitest, Go test), integration testing (API, end-to-end), and coordinating UAT—improving defect detection prior to deployment by 60-80%
 - Maintain a distributed system with 300+ Golang microservices and 50+ Vue.js micro-frontends on Tanzu Kubernetes, ensuring scalability, modularity, and high availability across 4 environments and 3 clusters.
 - Designed, built, and manage 50+ CI/CD pipelines with integrated security scans (SonarQube, TruffleHog, Trivy), using reusable GitHub Actions workflows to reduce manual deployment effort by 80% and improve release confidence by 90%.
 - Implemented 3+ OIDC and SAML integrations with IU Single Sign-On (SSO) using Shibboleth as the authentication provider, ensuring secure and seamless user authentication across multiple applications.
 - Lead and maintain the ADA compliance initiative for Polis Center websites and documents, achieving WCAG AA and AAA standards using tools like Siteimprove and Adobe Accessibility Checker, successfully converting over 90% of content to full accessibility.

Love’s Travel Stops – Cloud Security Engineer I

- Oklahoma City, OK | Jan 2023 – Oct 2023 | Full-Time
- Mentored/guided over 4 interns during their internship at Love’s for the information security department.
 - Led the API security project at Love’s and secured over 100 APIs which talked to our major applications. During this process I coordinated with our developers to successfully resolve the security gaps related to unauthenticated APIs, excessive data exposure, and publicly exposed API endpoints. We used Imperva’s API tool to find the gaps.
 - Coded and implemented MS Azure security policies to auto-remediate compliance control policy violations and this raised our CIS score from 30% to 90%. This was a great achievement because it made our MS Cloud more secure and tightened the security at the production level.
 - Led OKTA MFA for O365 project and coordinated with IDM team, DevOps team, Developers, change management team, and corporate employees to execute the implementation.
 - Led an application security project, implementing GitHub Advanced Security and Veracode into the CI/CD pipeline for automatic code scanning and vulnerability detection.
 - Built Splunk dashboards for our cloud solution for the CISO to show all the security related events and an inventory of all our cloud related services.

Love’s Travel Stops – DevOps & DevSecOps Intern

- Oklahoma City, OK | May 2022 – Dec 2022 | Internship
- Led cloud security initiatives across Microsoft Azure and AWS by monitoring and automating remediation of security alerts, auditing for CIS, PCI, and Azure Best Practices compliance, and deploying custom Azure policies to enforce security controls.
 - Centralized cloud visibility by designing Splunk dashboards using custom SPL queries, integrating logs from Azure and AWS via Event Hubs and Azure Storage, and visualizing compliance metrics, login activity, and service inventories.

- Automated server maintenance by developing a PowerShell script for weekly log cleanup, optimizing server space and reducing manual effort.
- Enhanced deployment monitoring with a Cisco AppDynamics dashboard for CI/CD metrics and failures, and streamlined Azure DevOps workflows for automated blue-green deployments across Azure, AWS, Heroku, and Windows servers.

University of Central Oklahoma – IT Lead Technician & Assistive Tech Specialist

Edmond, OK | Jan 2020 – May 2022 | Internship

- Managed assistive technology resources by coordinating alternative print requests, supervising production, and providing usage statistics in compliance with federal and state laws.
- Led training and support initiatives for faculty, staff, and students on assistive/adaptive technology and accessible materials, while researching and recommending innovative solutions.
- Automated tasks and deployments by coding PowerShell scripts for software installation and data generation, improving efficiency.
- Trained and mentored new technicians on ticket management, Active Directory, imaging, and troubleshooting through hands-on projects and practical exercises.

PROJECTS

Bookmark App – <https://www.bookmarks-app.com>

Stack: Figma, Next.js, React JS, TypeScript, Tailwind CSS, Node.js, PostgreSQL, Google Authentication, Vercel, Shadcn UI, Prisma, SQL, OpenAI API, Zustand, Clerk, Google Analytics, PWA

- Built a full-stack bookmark manager with Google authentication, GPT-4-powered auto-tagging and descriptions, and global state synchronization using Zustand.
- Designed normalized PostgreSQL schemas with Prisma ORM and implemented server actions CRUD operations and user-specific data isolation.
- Engineered features for import/export, real-time sync, and QR code-based sharing, with deployment as an PWA on Vercel.
- Integrated Google Analytics and accessibility optimizations to ensure usability and performance across devices.

Event Center Rental Service – (Work in Progress)

Stack: Next.js, Firebase, Supabase, Google Maps API, Tailwind CSS, Shadcn, SendGrid, MS Azure, Vercel

Collaborating closely with two other developers to build a location-aware event venue booking platform with real-time search and filtering.

- Building a location-aware event venue booking platform with real-time search and filtering using Google Maps Geolocation and Places APIs.
- Implementing filters for guest capacity, budget, location radius, and booking duration to improve discovery and relevance.
- Integrating firebase for authentication and role-based access control, and SendGrid for user inquiry handling and notifications.
- Deploying on Vercel for scalable delivery with plans for PWA support and Azure-hosted data services.

RetroSession App – <https://www.retrosession.work/>

Stack: Next.js, TypeScript, Supabase, Firebase, WebSockets, Tailwind CSS, Clerk, Vercel

Collaborated closely with another developer to build and deliver a real-time micro-SaaS retrospective collaboration tool.

- Engineered a real-time micro-SaaS retrospective collaboration tool with dynamic dashboard updates powered by Supabase WebSockets.
- Implemented secure, seamless user authentication and session management using Clerk.
- Designed and integrated CRUD functionality for interactive retrospective cards with live syncing across clients.
- Developed a WebSocket-based chat system for team communication within retrospectives.
- Enabled full import/export of dashboards and state, deployed as a performant PWA on Vercel for cross-device usage.

ACADEMIC ACHIEVEMENT

Dean's Honor Roll	Fall 2021
Jafar Farzaneh Endowed Scholarship	2021-2022
Global Achievement Award	2017-2022

CERTIFICATIONS

Microsoft Certified: Azure Administrator Associate | CompTIA Security+ CE | (ISC)² Certified in CybersecuritySM - CC | CLF-C01 - AWS Certified Cloud Practitioner | AZ-900 - Microsoft Certified: Azure Fundamentals | CompTIA Network+ CE | CompTIA A+ CE