NIKILESH MADALA

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EDUCATION:

Virginia Tech (Masters in computer science)   **Aug 2023 - May 2025**
Related Coursework: Web Development, Cloud Computing, Information Security
Anna University (Bachelor of Engineering in Computer Science)   **Aug 2018 - Jun 2022**
Related Coursework: Data Structures, Object Oriented Programming, DatabaseManagement Systems

TECHNICAL SKILLS:

Expertise Areas: Full-stack Development
Languages: Python, Java, JavaScript, TypeScript, SQL, Linux, Ruby, Shell
Databases: Oracle, MySQL, SQL Server, MongoDB, PostgreSQL, GraphQL
Frameworks/Web Technologies: React, Redux, Node.JS, Express, jQuery, Bootstrap, Vue.js, Rest APIs, Spring
Technologies: AWS, Power BI, Snowflake, Git, Bitbucket, Postman, Docker, Kubernetes, Jira, Jenkins

EXPERIENCE:

Cognizant   **Nov 2022 - Jul 2023**
Software Engineer

- Developed and maintained robust APIs using Python to manage insurance portfolios, client policies, and policy creation processes, enhancing data retrieval efficiency by 30% and reducing error rates by 20%.
- Modeled and implemented user-friendly front-end interfaces with React functional components for seamless policy management and portfolio tracking, which improved user interaction and satisfaction scores by 35%.
- Built and optimized serverless backend solutions using AWS Lambda, integrating with AWS VPCs to ensure secure and scalable handling of policy data, which led to a 25% reduction in operational costs.
- Architected and administered AWS infrastructure to support high-volume policy management and client interactions, achieving 99.9% system uptime and improving overall system reliability.

Cognizant   **Feb 2022 - Jun 2022**
Software Development Intern

- Designed customer profile using React, successfully improving user experience and streamlining the profile management process, resulting in 99 out of 100 users reporting a smoother experience.
- Created and deployed corresponding APIs for profile updates, ensuring data integrity and reducing update processing time by 20%.
- Resolved 20+ client-reported bugs, enhancing application reliability and user satisfaction.
- Documented processes, tasks, and development workflows comprehensively, creating clear and accessible documentation on Confluence to support team collaboration and knowledge sharing.

PROJECTS:

UniNav - Campus Navigation Platform:

- Developed a web-based navigation system using React, TypeScript and What3Words API for precise location mapping, improving campus navigation accuracy by 45%.
- Implemented WebSocket protocol for real-time event notifications and updates, achieving 99% delivery rate for campus-wide announcements.
- Integrated a recommendation engine using collaborative filtering algorithms, increasing event discovery and user engagement by 40% across the platform.

Encrypted Image Transmission System:

- Constructed an AES-256-based image encryption platform to secure image transmission over untrusted networks.
- Created a React front-end with integrated encryption libraries, enhancing user interaction and achieving a 35% improvement in encryption processing speed.
- Executed HTTPS and TLS protocols, ensuring secure and tamper-proof data transfer, with 49 out of 50 transmissions verified as uncompromised.
- Designed a real-time verification system, maintaining image integrity and successfully preventing unauthorized modifications in 46 out of 50 test cases.

Full-Stack LMS Clone:

- Modeled a full-stack LMS using Django, PostgreSQL, React, and TypeScript for better system performance.
- Architected Python-based quiz modules with randomized questions and multi-format support, enhancing user engagement by 25%.
- Built RESTful APIs with Node.js and Express, reducing data retrieval time by 30%.
- Utilized React Hooks for state management and produced secure video uploads and PDF generation, improving content accessibility by 40%.

Certifications:

- 3x AWS Certified including AWS Solutions Architect Associate & AWS Developer Associate.