Archana Narayanan

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EDUCATION

Indiana University   **Bloomington, IN**
MS Computer Science - 4.0/4.0   *Graduation Date: May 2024*

SASTRA University   **India**
B.Tech Computer Science - 8.5/10.0   *Graduation Date: May 2019*

WORK EXPERIENCE

GlobalNOC   **Bloomington, IN**
Systems Engineer   *Oct 2022 - Present*

- Spearheaded the development of a web-based data-centric application to provide comprehensive network information managed by devices hosted across multiple universities, improving network management efficiency.
- Engineered highly reusable UI components utilizing React and TypeScript; enhanced code maintainability and scalability, leading to 30% faster development cycles.
- Revamped legacy codebase through comprehensive refactoring initiative; optimized code quality and reusability resulting in 40% reduction in bug reports and improved development efficiency by 25%.

SS&C EZE   **India**
Senior Software Engineer   *Jun 2019 - Aug 2022*

- Pioneered the development and implementation of highly resilient fintech features that ensured uninterrupted financial operations, achieving 99.9% uptime and eliminating revenue loss due to system downtime.
- Led and facilitated technical team discussions on product development, actively shaping the design strategy for implementing multiple product features.
- Played a pivotal role in standardizing coding practices and project templates, fostering reusability, and maintaining consistency throughout the organization.

PROJECT EXPERIENCE

Publication - Biometric Template Protection

- Designed and published a co-processor for a highly secured, faster, and lightweight biometric system based on the genus-2 hyperelliptic curve. - https://link.springer.com/article/10.1007/s11042-019-7208-1

Movie Streaming Platform

- Architected and Deployed a cloud-native web application for on-demand content streaming, designed to serve 100+ viewers at a time, equipped with Disaster Recovery and Automatic Scaling.
- The Application enhances the user's experience by distributing the content and serving the data from a server closer to the user by employing Edge technologies.

Breaking Security - The Quantum Realm

- Worked through and Implemented Discrete Logarithm - Quantum Algorithm using Qiskit. The Algorithm when implemented on a scale is proven to break all the known encryption strategies currently being used by the Internet.

The L - Programming Language Compiler

- Developed and Engineered a custom compiler for versatile programming language supporting arithmetic, branching & looping constructs, arrays, functions, and tuples data structures.
- The compiler is 0.2x faster than the legacy compilers, by employing Constant & Variable Propogation Techniques with Constant Folding.

SKILLS

Programming Languages: Java, Python, GoLang, C#, C++, node JS, .NET

Web Development: Javascript, typescript, Angular JS, React JS, NextJS, CSS, SCSS, HTML, Tailwind CSS

Database: SQL, MYSQL, NOSQL, PL/SQL, MongoDB, Neo4J, ORMs

Cloud: AWS - S3, DynamoDB, SQS, SNS, Event Bridge, Lambda, Kinesis, EC2, Cloudfront, CloudWatch, Azure Administrator.

DevOPS: Docker, Kubernetes, Rancher, Nginx, Consul, Jenkins, Octopus, Teamcity, RMQ, Kafka, AMQ.

Protocols: REST APIs, GraphQL, RPC, Websockets

Testing: Jasmine, Protractor, Selenium, J-unit, Protractor

Techniques: Micro-services, Solution Infrastructure, Distributed Systems, Agile methodologies, Multi-Tenant Management, Technical Architecture, CI/CD pipelines.