

PALGUNI PENDURTHI

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SKILLS SUMMARY

Languages: Java, C, SQL, Python, HTML/CSS, JavaScript, GO, C#

Technologies & Frameworks: Pandas, Spring, PySpark, REST API, Spring Boot, Git, JUnit, ReactJS, AWS

Databases & OS: Windows, Linux/Unix, MySQL, PostgreSQL, Oracle, SQL Developer, MongoDB

Tools: VS Code, Eclipse, Maven, Gradle, Docker, GIT, Jira, BitBucket, Postman, Sonar, Helm, Jenkins, Kubernetes, Azure

Skills: Software development life cycle, Version Control, Scrum/Agile, Coding, Peer Code Review, Test, OOP, Mentoring

EDUCATION

University of Utah

08/2022 – Present

Master of Science in Computer Science – GPA: 3.7/4

Salt Lake City, Utah

Courses: Data Management with ML, Operating Systems, Distributed Systems, Cryptography

EXPERIENCE

Software Engineer | Internship, Full-Stack Developer

06/2023 – 08/2023

Global Payments

Alpharetta, Georgia

- Modernized digital document storage, implemented search & download features contributing to a 50% efficiency boost.
- Improved tokenization and encryption for customer data, achieving a 40% enhancement using Java, Spring Boot, and JUnit to create comprehensive test cases.
- Led a comprehensive upgrade initiative, successfully transitioning the backend application to Java 19.
- Utilized Docker and Kubernetes to containerize and orchestrate applications, enabling efficient resource utilization and deployment portability.
- Developed and implemented secure and seamless transaction processing logic in Java Spring Boot Microservices and Spring MVC with Maven build, enabling domestic and overseas client payments.

Software Engineer | Internship, Backend Developer

01/2022 – 07/2022

ACI WorldWide

Bengaluru, India

- Collaborated with a scrum team to develop a multi-gateway product, enhancing transaction logging by 25% through developing REST API's using Java and Groovy.
- Spearheaded the successful completion of 5+ Stories and contributed to over 20+ Stories by delivering APIs while adhering to strict SDLC processes, ensuring excellent uptime for enterprise-grade software serving millions of users.
- Conducted Root Cause Analysis for message transfer issues for ISO20022 messages and Real time payment systems, resolved approximately 40+ bugs, resulting in a 10% decrease in customer support tickets.

Software Developer | Internship, Frontend Developer

04/2019 – 06/2019

Vitvaraa Electronics

Bengaluru, India

- Collaborated in a cross-functional team to build their UI using Java Script and ReactJS, web app development using C# and ASP.NET, increasing their customer reach by 30%.

SELECTED PROJECTS

Data Management with ML | Python, Pandas, Numpy

04/2024

- Developed an innovative integrated hybrid cleaning system that leverages advanced algorithms and predefined rules to automate clean and preprocess data, resulting in a remarkable 58% increase in data cleaning efficiency and enabling faster, more accurate data analysis.

Cryptography | Java, Solidity, Web3js, Ganache, Circom

Present

- Executed Double-ratchet mechanism that is used behind WhatsApp for secure messaging which uses double layer encryption with Diffie-Hellman and symmetric key ratchets. Built an AES encryption tool which can encrypt and decrypt Images, Videos, Audios, Text.
- Developing a novel privacy-enhancing security architecture for private blockchains, leveraging zero-knowledge proofs (ZKPs) and zk-SNARKs to cryptographically distinguish between honest and dishonest users through custom "privacy pool" data structures, which utilize Merkle trees to efficiently prove legitimate membership and participation on the network without revealing sensitive data.

Distributed Systems | GO, RPC'S, MAP-REDUCE, RAFT

12/2022

- Deployed Distributed MapReduce worker processes that handle reading and writing files, and a coordinator process that hands out tasks to workers and copes with failed workers.
- Built a fault-tolerant key/value storage system on top of Raft (a replicated state machine protocol)