

Sai Durga Shashidhar Pothukuchi

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 <https://www.linkedin.com/in/shashidhar-psd> |  <https://github.com/shashidhar-pothukuchi> |  <https://www.psds.dev>

Technical Skills

Languages: Java, Python, C++, SQL, JavaScript

Tools and Frameworks: Spring Boot, Spring batch, Angular, React.js, pytorch, TensorFlow, Hibernate, RESTful APIs, gRPC, GraphQL, Apache Kafka

Data: PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch, Kibana, FlywayDB, Apache Spark

Cloud Platforms: Azure AKS, Azure ADO, AWS EC2, Docker, Kubernetes, EKS, Jira, Gradle, Maven, Harness CI/CD, IBM RTC, Git

Testing: JUnit, Mockito, Puppeteer, Postman, Swagger, Log4j

Design Methodologies: Microservices, Agile (Scrum), MVC, Object-Oriented Design, Design Patterns (Factory, Saga)

Work Experience

Software Developer | Tata Consultancy Services (State Street Bank and Trust)

December 2024 – Present

- Working on integrating a stateless orchestration engine (10M msgs/hr, 10x throughput), responsible for developing its real-time monitoring dashboard similar to Camunda Operate and Kibana using React, Spring, GraphQL, Elasticsearch, Kibana, and BPMN.js.
- Architected and delivered AI modules powered by Azure AI and RAG for automated file processing, embedded an AI-driven chat wizard; leading a team of 5, accelerating feature delivery by 40% and accelerating migration by 30%.
- Designed and shipped unstructured file parsing support to the system, developed a rule-based parser interface integrating via gRPC, Spring Boot, Hibernate, Postgres, AKS, and Azure Blob Storage, while leading a 3-member team through production rollout.
- Automated workflow maintenance and cleanup by creating Camunda BPMN processes, implementing service tasks to invoke Java microservices, and developing Java gRPC client-server components to audit and remove legacy or unused workflows, eliminating 40% of unused flows and boosting overall system efficiency.
- Authored documentation and test suites (unit, smoke, integration) and built CI/CD pipelines (Azure ADO, Harness) for multi-environment deployments.

Artificial Intelligence Research Assistant | University of South Florida

December 2023 – May 2024

- Developed a multilayered model using BERT and GPT2-XL from Hugging Face using python3, and pytorch to extract golden events from textbook data, resulting in a 40% improvement in data accuracy and delivering precise event prediction results.
- Optimized the base implementation, reducing the overall prediction time by 60%. Optimized the processing time by developing GPU-accelerated code.
- Designed and developed the Language GRASP lab website, designing user interface using HTML, CSS, JavaScript, and Bootstrap. [Link](#)

Full Stack Developer | Cognizant (Walgreens)

November 2020 – June 2022

- Contributed to software development for a major US-based pharmaceutical company, resolved production defects and critical issues, reducing 30% of overall defects in the newly designed system.
- Leveraged Java 11, Spring Boot, Spring Batch, Hibernate and Gradle for dependency management, ORM mapping and building RESTful APIs. Used React.js for designing interactive frontend Single Page Application, utilizing React Router and Redux.
- Performed unit tests using JUnit and Mockito, logged application events using Log4j, used Swagger API documentation, and Postman for testing and validating API endpoints. Worked on configuration scripts and installing certifications.

- Successfully designed and implemented RESTful microservices architecture, integrating with Azure CI/CD pipelines and k8 clusters, realizing a significant 15% operational efficiency improvement.

Projects

Smart Grocery Management Application | [Project Link](#) August 2023 – December 2023

- Spearheaded the development of a full-stack MERN grocery inventory management system, through RESTful APIs and React functional components. Integrated React Router for navigation and React-Bootstrap for a responsive UI.
- Utilized Node.js with Express for server-side logic and Axios for API communication. Deployed the application with NoSQL MongoDB database using Mongo Atlas.
- Led end-to-end project execution, gathering user feedback via surveys and delivering detailed reports on performance, scalability, and user behavior.

XV6 Operating System Feature Implementation January 2023 – May 2023

- Developed OS level shell commands ls, uniq, find, cat, nice, and ps used for basic functionality of Unix, and handled errors working on kernel level programs using vim.
- Implemented process scheduling for the operating system, creating the basic building block of the OS. Implemented FIFO and priority scheduling. Developed system calls such as sleep(), and sbrk() system calls modifying the process memory size and improving memory allocation. Implemented lazy allocation handling page faults.
- Improved the xv6 by implementing symlinks, increasing maxing file size, and an extent based file system, improving the capacity, and scalability of the system and improving the xv6 kernel.

Spring Portfolio Application | [Project Link](#) March 2021 – April 2021

- Architected and implemented a microservice-based REST MVC portfolio application using Spring Boot realizing Dependency Injection and IOC, Spring Data JPA, Feign Client for service-to-service communication, applying microservice, factory, doa design patterns and principles for a clean separation of concerns.
- Developed and tested REST APIs with JUnit for unit testing, Mockito for mocking dependencies, and Swagger for API documentation, ensuring seamless interaction and clear API definitions.

Aspect-Based Sentiment Analysis Using Machine Learning | [Project Link](#) December 2019 – July 2020

- Used scraped Amazon reviews to obtain Aspect-based Sentiment of products on Amazon website. Built a full-stack web application allowing input of a product and retrieving detailed sentiment insights using NLTK Sci-kit Learn for natural language processing.
- Built the backend using Flask to handle sentiment analysis and integrated Node.js for server-side web scraping. Utilized React with React Router and Material-UI for creating a clean, responsive, and user-friendly interface.

Education

Master of Science in Computer Science | University of South Florida August 2022 – May 2024

C.G.P.A – 4

Related Coursework: Deep Learning, Introduction to AI, Cloud Computing, Data Mining, Principles of Computer Architecture, Operating Systems, Introduction to Theory of Algorithms.

Bachelor of Engineering in Computer Science | Matrusri Engineering College, OU August 2016 - June 2020

C.G.P.A – 3.79 (WES accredited)