

Sriram Boddeda

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TECHNICAL SKILLS

Programming: Python, C#, Java, JavaScript, Typescript, R, Solidity, Data Structures, Algorithms
Development: React, Next.js, Node.js, Express.js, ASP.NET, .NET, MVC, REST, GraphQL, HTML, CSS, Tailwind CSS
Testing & Automation: Playwright, Selenium, MS Test, Puppeteer
Databases: MySQL, SQL Server, Oracle, MongoDB, SQLite, Firebase, PostgreSQL
DevOps & Deployment Tools: Jira, Docker, Jenkins, Google Cloud Run, Git, Kubernetes

EXPERIENCE

University of Oklahoma Norman, OK
Software Developer Feb 2024 – Present

- Created AtlasCollect with Next.js and TypeScript, implementing role-based authentication and access management for single-cell RNA-seq dataset collections.
- Developed and maintained 50+ RESTful APIs to power dataset upload, conversion pipelines, and merging of multiple datasets into unified collections.
- Integrated asynchronous data processing by triggering R scripts via Node.js's `child_process`, streaming progress, and handling results in real time.
- Managed data persistence with Prisma ORM (SQLite/PostgreSQL) and containerized the application with Docker and Docker Compose for seamless CI/CD deployments.

Computer Science | University of Oklahoma Norman, OK
Graduate Research Assistant Oct 2023 - Dec 2024

- Designed and built a responsive website with Next.js and Strapi CMS, integrating PostgreSQL for efficient research lab data management.
- Improved user experience by implementing search and dynamic routing functionalities for researcher and blog pages.
- Programmed a data pipeline in Linux to convert raw cell sample data into multiple dataset formats using specialized R libraries for processing single-cell RNA sequencing data.
- Automated lab tasks with Python and Selenium, reducing manual workload by 50% and improving efficiency.

Persistent Systems Pune, India
Software Engineer Dec 2020 - Nov 2022

- Reduced the manual testing time by 80% by scripting a PowerShell to generate reports for inconsistencies and redundancies detected during data migrations.
- Developed GraphQL and REST APIs for an internal dashboard app with LDAP authentication. Managed distributed servers, automating health monitoring and reducing manual checks by 70%, saving 10+ hours weekly in server maintenance.
- Optimized the data storage and loading architecture in export and import services, reducing runtime memory consumption exponentially as the data size increases and improving system performance.
- Resolved data discrepancies in multiple migrations by creating an algorithm that reduced migration errors and ensured accurate updates. Maintained data integrity effectively while optimizing the migration process.
- Created a .NET web app using NATS messaging to integrate with legacy .NET Framework APIs, enabling MS Tests in .NET Core without direct dependency on the outdated client library.

EDUCATION

University of Oklahoma Norman, OK
Master of Science, Computer Science Jan 2023 - Dec 2024

- GPA: 3.78/4.0

Jawaharlal Nehru Technological University Kakinada Kakinada, India
Bachelor of Technology, Computer Science and Engineering July 2016 - Sep 2020

- GPA: 3.10/4.0

PROJECTS

NoteCraft Sep 2024 - Oct 2024

- Developed NoteCraft, a comprehensive and responsive note-taking platform that supports both markdown and plain text notes.
- It features an intuitive user interface designed for seamless navigation and efficient note creation, editing, and management.

Decentralized Ethereum Marketplace | Blockchains & Cryptocurrencies Sep 2024 - Apr 2024

- Implemented a decentralized marketplace using Next.js and Solidity, enabling secure transactions with Ethereum Sepolia coins.
- Integrated MetaMask wallet functionality for a seamless user experience, conducting extensive testing on Ethereum test networks to ensure smart contract security.

Job Shop Application | DBMS Sep 2023 - Dec 2023

- Modeled and programmed a robust database using MS SQL, then coded a comprehensive database-driven application with a JSP web interface for managing and booking services, including a Java command-line tool for efficient data operations.