BHANU TEJA SOLIPETA

bhanu.solipeta@okstate.edu · (929) 378-9780

EDUCATION

Oklahoma State University, Stillwater, Oklahoma, USA **Aug 2022 – Dec 2024**
Masters in computer science **GPA: 3.8/4**

IIIT Kancheepuram, Chennai, India **Aug 2018 – May 2022**
Bachelor of Technology – Computer Science Engineering **GPA: 8.12/10**

SKILLS

LANGUAGES: Python, Java, JavaScript, TypeScript, SQL, PHP, HTML, CSS, C++.
SOFTWARE TOOLS: Android Studio, React.js, React Native, Angular, Node.js, Express.js, JSON, Spring Boot, Spring MVC, Hibernate, Postman, Bootstrap, AWS lambda, pandas, TensorFlow, Visual Studio Code, Power BI, WordPress.
DATABASE AND SERVER: MySQL, SQL server, Mongo DB, AWS, Apache Tomcat, Servlets, JSP, JDBC, JMS jQuery, Ajax.
OTHER TOOLS: Linux, Unix, GitLab, Git, Git Bash, Agile, Docker, Kubernetes, Jenkins. Jira, Bitbucket, CI/CD pipelines.

WORK EXPERIENCE

Application Developer, OSU, Oklahoma **Aug 2023 – Dec 2024**

- Developed responsive web applications using JavaScript, Next.js, and React Native, ensuring cross-platform compatibility and seamless user experiences. Focused on scalable geospatial data visualizations and dynamic UI/UX design principles.
- Prototyped web applications with HTML, CSS, JavaScript, and TypeScript, implementing data visualizations with SVG and Canvas, aligning with client needs and enhancing user interaction.
- Contributed to geospatial analysis projects, integrating Turf.js for spatial computations and AWS Lambda for cloud-based geoprocessing, ensuring scalability and efficient performance.
- Collaborated with multidisciplinary teams to gather requirements and implement geostatistical reporting tools, using D3.js for interactive data visualizations and mapping.
- Deployed containerized applications using Docker and Kubernetes, ensuring seamless integration with AWS services, supporting scalability and high availability for data processing tools.
- Managed source control and continuous integration with Jira and Git, maintaining high development standards and timely delivery of complex web applications.
- Developed mobile data collection tools integrated with geospatial frameworks to capture and analyze real-time data, enhancing research and spatial planning efficiency.

Full Stack Developer, Cap Gemini, India **Jan 2021 – June 2022**

- Developed and deployed web mapping applications using JavaScript, React, and Node.js, enabling spatial analysis and dynamic user interaction with geospatial datasets.
- Designed and implemented responsive geospatial tools for visualizing large datasets, leveraging Next.js for server-side rendering and GraphQL APIs for optimized data retrieval.
- Utilized Amazon Web Services (AWS) for cloud computing, integrating serverless functions with AWS Lambda to process geospatial data and scale services dynamically.
- Implemented geospatial data visualizations with D3.js and Canvas, optimizing for performance and scalability in marine spatial planning applications.
- Managed NoSQL databases (MongoDB) for handling real-time geospatial data streams, ensuring efficient data storage and retrieval for complex geospatial operations.
- Worked in Agile environments, collaborating with cross-functional teams to meet client requirements for geospatial reporting and analysis, utilizing open-source geospatial libraries.
- Developed custom geospatial algorithms for spatial data manipulation, improving the efficiency of large-scale geospatial analyses and enhancing data reporting accuracy.

PROJECTS

Journal Application

- Developed a Next.js application with Bootstrap 5 and CSS for recording and visualizing geospatial data, including multimedia elements such as images, maps, and user interactions stored in a MongoDB database.
- Integrated geospatial analysis tools provide personalized suggestions based on recent locations and spatial data. AWS Lambda and AI algorithms were used to refine suggestions, improving their relevance for the user. Stripe was incorporated for secure payment processing in related services.

Job Posting Application

- Built a MERN application facilitating spatial data sharing and visualization, enabling users to post and browse geospatial data for marine spatial planning projects.
- Used MongoDB as the database, while backend APIs were developed using Node.js and AWS Lambda to efficiently manage user data and geospatial profiles, ensuring real-time updates and seamless integration with the database.
- Implemented microservice architecture to divide the application into modular, independently deployable services, enhancing scalability, maintainability, and overall system performance for geospatial analysis and reporting.