Kesav Bollam | Full Stack Web Developer

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Portfolio | LinkedIn | GitHub | HackerRank

IN A NUTSHELL

With an added 4 years of experience, accomplished Full Stack Web Developer specializing in AWS serverless technologies, TypeScript, and cutting-edge React. Passionate about engineering innovative, end-to-end web applications that elevate user experiences. Expertise in AWS Cognito, Lambda, DynamoDB, and modern React frameworks. Proven problem solver with strong leadership and communication skills. Lifelong learner committed to staying at the forefront of technology. Feel free to explore my projects and get in touch at vikashbollam@gmail.com. I'm always open to new opportunities and collaborations!

PROFESSIONAL EXPERIENCE

WILY GLOBAL INC. | **Full Stack Web Developer** **2021-04 to 2024-03**
Burlington, Ontario, CA

- Built a scalable email system handling 1M+ emails/day using AWS SES, Lambda, and SQS, reducing processing time by 60%.
- Designed serverless file workflows with S3 and Step Functions, scaling to 50K+ uploads/day while cutting infrastructure costs.
- Optimized database performance, achieving 3x faster queries and 40% cost savings using DynamoDB, RDS Aurora, and Redis.
- Reduced API latency by 70% through GraphQL, pagination, and lazy loading, enhancing user experience.
- Architect efficient RESTful APIs and rock-solid server-side logic for top-notch performance and security.
- Automated zero-downtime deployments with Terraform, AWS CodePipeline, and SSM, speeding up releases by 50%.
- Enabled real-time data sync with EventBridge, ensuring sub-second latency and consistent updates.
- Ensure code quality through rigorous testing, debugging, and adherence to industry best practices.

Key Technologies: React, TypeScript, Node.js, AWS (SES, S3, Lambda, DynamoDB), Terraform.

CGI INC. | **Software Engineer** **2020-01 to 2021-04**
Sherbrooke, Quebec, CA

- Collaborated with senior developers to build responsive user interfaces using React and TypeScript, enhancing usability and performance..
- Learned and implemented best practices for state management using Redux and modern hooks to streamline UI logic and data flow.
- Contributed to developing reusable components and design systems, ensuring consistency across multiple projects.
- Supported API integrations by consuming RESTful and GraphQL endpoints, optimizing front-end performance and responsiveness.
- Assisted in creating CI/CD pipelines using AWS CodePipeline and CodeBuild, gaining exposure to cloud-based deployments.
- Gained hands-on experience with Terraform to provision development environments, honing infrastructure-as-code skills.
- Participated in code reviews and debugging sessions, improving code quality and understanding of scalable architecture.
- Resolved technical challenges through collaborative problem-solving with cross-functional teams.

Key Technologies: React, TypeScript, Redux, GraphQL, AWS CodePipeline, Terraform.

EDUCATION

BISHOP'S UNIVERSITY Sherbrooke, Quebec, Canada
Master of Computer Science; Major in Computer Science August 2019 - January 2021
GPA: 3.8

VIT UNIVERSITY Vellore, India
Bachelor of Science in Computer Science January 2015 - January 2019

CERTIFICATIONS & PROFESSIONAL AFFILIATIONS

AWS Certified Cloud Practitioner | JavaScript Certification | Problem Solving Certification | Rest API Certification | Programming for Everybody (Python)

NOTEWORTHY PROJECTS

1. Scalable Bulk Email System with Real-Time Feedback

Key Technologies: React, Node JS, AWS SES, AWS SQS, AWS Lambda, AWS S3, Terraform.

Issue: The existing bulk email process relied on a manual JavaScript script that sent emails in batches. This approach was slow, error-prone, and difficult to scale. Additionally, managers lacked visibility into campaign progress and delivery outcomes.

Solution: Designed and implemented an automated, serverless email delivery system with a React-based dashboard:

- **File Upload via S3:** Managers can upload Excel files provided by client admins through the dashboard, which are securely stored in AWS S3.
- **Campaign Trigger:** The manager selects an email template and triggers the campaign, which processes the uploaded file.
- **Asynchronous Email Processing:**
  - AWS Lambda reads the file from S3, splits the workload into smaller batches, and queues the jobs in AWS SQS.
  - AWS SES sends the emails, with retries handled automatically for failures.
- **Real-Time Feedback:** Confirmation emails are sent to the manager and client admin when the campaign starts and ends, with a summary report of successes and failures.

Results:

- **70% Faster Processing:** Reduced email delivery time, enabling 1M+ emails/day.
- **60% Cost Savings:** Optimized infrastructure costs using serverless technologies.
- **Improved Transparency:** Real-time progress tracking and detailed success/failure reports for managers.
- **Scalability:** Easily handles high-volume email campaigns with minimal manual effort.

This solution replaced a slow, manual workflow with an automated, scalable system that provides managers with full control and visibility over bulk email campaigns.

2. Reusable Node Module for Campaign Website Components

Issue: We used to as Frontend developers manually converted static HTML/CSS into React components, which was time-consuming and prone to inconsistencies.

Solution: Built a Node.js module to automate this process:

- Created reusable functions to convert static HTML/CSS slices into customizable React components.
- Developers install the module via NPM, import the page functions, and provide the HTML/CSS. The module returns ready-to-use React components with applied styles.
- Functions allowed easy customization through props for dynamic content and styling.

Results:

- 50% Faster Development by eliminating manual HTML-to-React conversion.
- Consistency across common pages like splash, contact us, login, etc.
- Boosted Productivity by simplifying page integration and reducing manual effort.

This module streamlined development, ensuring faster, more consistent creation of campaign website pages.