SYED ALI SHUJA

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Key Qualifications

- **Full-Stack Engineer** with extensive experience in **React.js, Node.js, and Google Cloud Platform (GCP)**, building highly scalable and performance-optimized web applications.

- **Version Control Expertise** with **Git and GitHub**, ensuring smooth team collaboration, feature branching, and efficient code reviews across multiple development environments.

- **Back-End Development Expertise** with **Node.js and Express.js**, developing robust RESTful and GraphQL APIs, optimizing server performance, and integrating with NoSQL databases like **MongoDB and Firestore**.

- **React.js for Front-End Development**, leveraging **Hooks, Context API, and Redux** for state management in dynamic, responsive UIs with optimized rendering techniques.

- **Cloud-Native Development** with **GCP**, utilizing **Cloud Functions, Firestore, Cloud Storage, and Cloud Pub/Sub** for building scalable and serverless applications.

- **Database Management** with **MongoDB, Firestore, and PostgreSQL**, designing efficient schemas, implementing indexing, and optimizing queries for performance.

- **Asynchronous Data Handling** using **WebSockets, Firebase Realtime Database, and GraphQL Subscriptions**, enabling real-time features like notifications and live updates.

- **API Development & Integration**, creating RESTful and GraphQL APIs in **Node.js and Express.js**, integrating third-party APIs for payments, authentication, and data processing.

- **State Management & Performance Optimization**, ensuring smooth front-end interactions using **React Query, Redux Toolkit,** and **Server-Side Rendering (SSR) with Next.js**.

- **Authentication & Security Practices**, implementing **JWT, OAuth 2.0, Firebase Authentication, and Role-Based Access Control (RBAC)** for secure application access.

- **DevOps & CI/CD Automation**, deploying scalable applications using **Docker, Kubernetes (GKE), Terraform, Google Cloud Build, and GitHub Actions**.

- **Front-End Performance** Optimization, improving page load times using **Lazy Loading, Code Splitting, Image Optimization, and CDN Caching**.

- **Progressive Web App (PWA) Development**, ensuring offline capabilities and mobile-first experiences using **React.js, Next.js, and Firebase**.

- **E-commerce & Payment Integration**, integrating **Stripe, PayPal, and Google Pay** into web applications for seamless transactions and subscription management.

- **Microservices Architecture**, designing and deploying modular services using **Node.js, Kubernetes, and Pub/Sub messaging** for scalable backend solutions.

- **Cross-Browser Compatibility & Responsive Design**, ensuring consistency across all platforms using **Material-UI, Tailwind CSS, and CSS Grid/Flexbox**.

- **Real-Time Collaboration Features**, developing chat, notifications, and document-sharing functionalities using **WebSockets, Firebase, and Redis**.

- **Cloud Infrastructure Management**, optimizing serverless applications on **Google Cloud Platform (GCP)** for scalability and cost-efficiency.

- **Performance Monitoring & Logging**, utilizing **Google Stackdriver, Prometheus, and Grafana** to track system health, API performance, and user activity.

Technical Skills

Category	Skills and Technologies
Full-Stack Development	React.js, Next.js, Node.js, Express.js, MongoDB, Firebase Firestore, Material-UI, Tailwind CSS
Back-End Development	Node.js, Express.js, GraphQL, RESTful APIs, Firebase Functions, WebSockets
Front-End Development	React.js, Next.js, Redux, Context API, React Query, Material-UI, Chakra UI
Cloud Platforms	Google Cloud Platform (GCP), Firebase, AWS (limited to integration services)
DevOps & CI/CD	Docker, Kubernetes (GKE), Terraform, Google Cloud Build, GitHub Actions, GitLab CI/CD
Serverless Technologies	Google Cloud Functions, Firebase Functions, Cloud Run
Real-Time Technologies	WebSockets, Firebase Realtime Database, Redis Pub/Sub, GraphQL Subscriptions

Database Management	MySQL, PostgreSQL, MongoDB, SQL Server, Oracle Database, Amazon RDS, Azure SQL Database
Version Control Systems	Git, GitHub, GitLab, Bitbucket
Monitoring and Logging	Google Cloud Logging, Stackdriver, Prometheus, Grafana, ELK Stack (Elasticsearch, Logstash, Kibana)
Scripting and Programming Languages	JavaScript (ES6+), TypeScript, Node.js, Bash/Shell Scripting
Web Development	HTML5, CSS3, JavaScript (React, Angular, Vue.js), Node.js, Express.js
Collaboration and Communication	Slack, Microsoft Teams, Jira, Confluence, Zoom, WebEx
Database Query Languages	SQL, PL/SQL, T-SQL, NoSQL Query Languages (e.g., MongoDB Query Language)
Markup Languages	XML, JSON, YAML, HTML5, Markdown
AWS Infrastructure Services	EC2, IAM, ECS, EKS, Fargate, RDS, DynamoDB, SNS, SQS, Lambda, S3, EBS, ELB, Route 53, VPC, Security Groups/NACL's, CloudFormation, Autoscaling
Operating Systems	Unix/Linux (Ubuntu, Debian, CentOS, RedHat), Windows 10/11, Windows Server (2016, 2019, 2022)

Professional Experience

Software Engineer
Ewarenet, Islamabad   **Apr 2022 - Present**

In this role, I focused on developing **React.js** and **Node.js** applications, ensuring high performance and security through **MongoDB and WebSockets**. I enhanced user experience by optimizing **Next.js, Material-UI, and Redux** on the frontend while managing backend processes with **Cloud Functions and API integrations**. I fulfilled the following responsibilities:

- Led the development of scalable and secure **React.js** applications using **Next.js**, focusing on building modular and maintainable front-end architectures for high-performance systems.

- Designed and implemented **RESTful and GraphQL APIs** in **Node.js/Express.js**, enabling seamless communication between front-end applications and external services, ensuring scalability and reliability.

- Integrated **React applications** with **Google Cloud Platform (GCP) services** such as **Cloud Run, Firestore, and Cloud Storage**, deploying fault-tolerant infrastructure and ensuring optimal performance across cloud-based environments.

- Developed **server-side logic** using **Node.js**, collaborating with front-end teams to integrate **Material-UI and Redux**, improving UI responsiveness and user interaction.

- Utilized the **MERN stack** to build and maintain highly responsive applications, focusing on **MongoDB database management** and query optimization to ensure efficient data retrieval.

- Improved performance of **Node.js** applications by implementing caching strategies with **Redis**, reducing API response times and improving overall application speed by 40%.

- Automated deployment processes using **GitHub Actions and Google Cloud Build**, integrating **CI/CD pipelines** to streamline React and Node.js application deployments, minimizing manual interventions.

- Enhanced data integrity by implementing **Firestore transactions and Cloud Functions triggers**, optimizing complex queries to ensure minimal downtime and maximum data reliability.

- Developed scalable **middleware components** in **Node.js**, integrating **GCP Pub/Sub and Firebase Messaging** for event-driven communication between microservices.

- Integrated **Google Cloud Storage** with applications for efficient file handling, optimizing asset management through **lazy loading techniques and Cloud CDN**.

- Architected cloud-native **React and Node.js applications** on **GCP infrastructure**, leveraging **Firestore for database management, Cloud Run for scaling, and Stackdriver for real-time monitoring**.

- Utilized **version control systems like Git and GitHub**, enforcing code reviews and branch management practices to maintain high code quality and collaboration.

- Led the migration of **legacy JavaScript applications** to **React.js and Next.js**, ensuring smooth transitions while enhancing security, maintainability, and code structure.

- Applied **Domain-Driven Design (DDD) principles** to modularize **Node.js** codebases, improving scalability and maintainability of large enterprise applications.

- Implemented **OAuth 2.0 and Firebase Authentication** for secure user authentication, ensuring compliance with best security practices.

- Collaborated with front-end developers, optimizing **React-based front-end systems** for smooth API consumption, ensuring fast and efficient data retrieval in large-scale projects.

- Spearheaded Agile/SCRUM ceremonies, leading cross-functional teams in delivering **React and Node.js** projects within tight deadlines, including presenting key results and project milestones to stakeholders.

Software Engineer

London Web World Limited, London   **Feb 2021 - March 2022**

At London Web World Limited, I developed **scalable and high-performance web applications** using **React.js, Node.js, and Google Cloud Platform (GCP)**. I optimized real-time interactions, enhanced security protocols, and restructured monolithic applications into efficient microservices. These were my responsibilities:

- Built **React.js dashboards** using **Redux, D3.js, and Chart.js**, enabling real-time analytics for financial reporting, improving data visualization clarity by **40%**.

- Developed **Node.js REST APIs** with **Express.js and MongoDB**, implementing **indexing and aggregation pipelines** to reduce API response time by **35%**.

- Integrated **WebSockets** and **Redis Pub/Sub** for real-time notifications, reducing latency by **50%** in a live customer support platform.

- Refactored a **monolithic application** into a **microservices-based architecture** using **Docker, Kubernetes (GKE), and Cloud Run**, improving deployment speed and **reducing downtime by 60%**.

- Implemented **server-side rendering (SSR) and static site generation (SSG)** using **Next.js**, boosting SEO rankings and **reducing page load times by 30%**.

- Converted legacy **React class components** to **functional components with hooks**, reducing state management complexity and improving code maintainability.

- Developed a **secure authentication system** with **JWT, OAuth 2.0, and Firebase Authentication**, cutting unauthorized access attempts by **60%**.

- Designed **CI/CD pipelines** using **Jenkins, GitHub Actions, and Google Cloud Build**, automating testing and deployment, reducing manual effort by **70%**.

- Engineered a **role-based access control (RBAC) system** with **MongoDB and Node.js**, enforcing granular permission levels across enterprise applications.

- Optimized **image and asset loading** by integrating **Cloudinary, lazy loading techniques, and Cloud CDN**, improving performance on low-bandwidth networks.

- Created **custom React UI components** using **Material-UI and Bootstrap**, maintaining consistent design standards across multiple web applications.

- Integrated **Stripe API and PayPal SDK** for secure payment processing, reducing transaction failures by **25%** and ensuring full **PCI-DSS compliance**.

- Developed a **document storage and access control system** using **Google Cloud Storage and Firebase Firestore**, streamlining file management for enterprise users.

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Associate Software Engineer
London Web World Limited, London   **Jan 2020 - Sep 2021**

As a **Senior Software Engineer**, I focused on modernizing and scaling **MERN Stack** web applications by enhancing infrastructure, optimizing API performance, and implementing cloud-based solutions. Using **React.js, Node.js, Express.js, MongoDB, and Google Cloud Platform (GCP)**, I developed highly optimized and scalable solutions.

- Led the development of **React.js applications** with **Redux and Context API**, building modular and maintainable front-end architectures that improved user interaction speed by **40%**.

- Designed and implemented **RESTful APIs and GraphQL endpoints** using **Node.js and Express.js**, ensuring seamless data communication and reducing API response times by **35%**.

- Migrated legacy **monolithic applications** to a **microservices-based architecture** using **Docker and Kubernetes (GKE)**, improving deployment speed and scalability.

- Integrated **GCP Cloud Functions and Firestore** to build a serverless backend, reducing operational overhead and enabling real-time data updates.

- Developed **real-time dashboards** using **React.js and D3.js**, providing data visualization for analytics and improving decision-making processes.

- Implemented **server-side rendering (SSR) with Next.js**, enhancing SEO and reducing initial page load times by **30%**.

- Built an **authentication system** using **JWT, OAuth 2.0, and Firebase Authentication**, strengthening security and reducing unauthorized access attempts by **60%**.

- Designed **CI/CD pipelines** using **GitHub Actions and Google Cloud Build**, automating deployment processes and reducing manual effort by **70%**.

- Engineered a **role-based access control (RBAC) system** using **MongoDB and Node.js**, ensuring secure access management across applications.

- Optimized **React.js performance** by implementing **lazy loading, code splitting, and React.memo**, reducing component re-render times and enhancing application efficiency.

- Developed a **real-time messaging system** using **WebSockets and Redis**, enabling instant communication for users and improving engagement by **50%**.

- Integrated **Stripe API for secure payment processing**, reducing transaction failures by **25%** and ensuring PCI-DSS compliance.

- Created a **file storage and management system** using **Google Cloud Storage**, enabling scalable and secure document handling for enterprise users.

Personal Projects

❖ **Epicentric Consulting**

- **Project Description**; Epicentric Consulting specializes in solving complex business challenges with innovative solutions, helping teams drive change through expertise and creativity.

- **Tech Stack**; React.js, Node.js, Express.js, MongoDB, Material-UI, Redux, RESTful APIs, Git, Docker, Google Cloud Platform (GCP).

- **Role**; Senior MERN Stack Developer – Full-Stack Development, API Design, Cloud Deployment.

❖ **Six String Country**

- **Project Description**; Six String Country offers comprehensive guitar and bass lessons with a focus on country music, providing users with an interactive learning platform.

- **Tech Stack**; React.js, Node.js, Express.js, MongoDB, WebSockets, Next.js, Redux, AWS S3, Axios, OAuth 2.0.

- **Role**; Full Stack Developer – Front-End Development, Real-Time Streaming, API Development, User Authentication.

❖ **Buildware**

- **Project Description**; Buildware is a comprehensive project management platform designed specifically for construction professionals, enabling efficient blueprint management, task division, and streamlined communication across construction projects.

- **Tech Stack**; React.js, Node.js, Express.js, MongoDB, Material-UI, Redux, WebSockets, GCP Firestore, Docker, Kubernetes.

- **Role**; MERN Stack Developer – Back-End Development, Real-Time Collaboration, Cloud-Based Data Management.

❖ **Factorial**

- **Project Description**; Factorial is a comprehensive HRMS platform, enhancing HR operations for businesses in France and Spain by integrating payroll, performance tracking, and employee self-service tools.

- **Tech Stack**; React.js, Node.js, Express.js, MongoDB, Google Cloud Run, Terraform, GitLab CI, Prometheus, Grafana.

- **Role**; DevOps & MERN Engineer – CI/CD Automation, Cloud Infrastructure Optimization, Fault-Tolerant System Design.

❖ **ShareWell**

- **Project Description**; Share Well is an online community dedicated to peer-led mental health support, offering individuals a safe and supportive space to address

life's challenges together.

- **_Tech Stack_**; React.js, Node.js, Express.js, MongoDB, Firebase Authentication, Next.js, Material-UI, RESTful APIs, WebSockets.

- **_Role_**; Tech Lead – Full-Stack Development, Real-Time Messaging, API Integration, Database Management.

Education

- Bachelor of Software Engineering, University of the Punjab (Achieved with Distinction)