

Sahib Yar

sahibyaar@hotmail.com — +92 336 6037321 — sahibyar.github.io — github.com/sahibyar —
linkedin.com/in/sahibyar

Technical Skills

Languages: Go, Java, C++, Python, JavaScript/TypeScript, C#, Node.js

Frontend: Angular, HTML/CSS, JavaScript, TypeScript, Single Page Applications (SPA)

Backend: RESTful APIs, WebSockets, Microservices, gRPC, Protobuf, OAuth

AI & LLM Integration: Claude Code, GPT-4, Gemini 2.5, Windsurf IDE, Vector Embeddings, RAG Architecture

Databases: PostgreSQL, MongoDB, Redis, MySQL, Oracle

Cloud & DevOps: AWS (S3, SQS, EMR), Kubernetes, Docker, Linux, Shell Scripting

Protocols & Standards: HTTP/3, WebTransport, ISO-8583, EMV, SSL/TLS, FIX Protocol

Key Achievements

- **Performance Optimization Expert:** Achieved up to 1500% performance improvements through system optimization, including 50% latency reduction in structured data parsing and 1000% throughput improvement via architectural changes
- **Large-Scale System Design:** Architected and built systems processing terabyte-scale datasets serving millions of users across distributed environments
- **Technical Leadership:** Led cross-functional teams of 5+ engineers, mentoring juniors on design patterns, code quality, and delivering mission-critical trading platforms
- **Full-Stack Development:** Built end-to-end solutions from high-performance backend services to modern frontend applications using Angular, Node.js, and JavaScript
- **Open Source Impact:** Active contributor to major projects including quic-go, go-libp2p, jtablesaw, and creator of innovative tools like MCPGen

Summary

Lead Software Engineer with 8+ years of experience in full-stack development, distributed systems, and technical leadership. Expert in building scalable, high-performance applications using modern technologies including Go, Java, JavaScript/TypeScript, and cloud platforms. AI-first practitioner since 2022, leveraging LLMs to enhance productivity by 40% through intelligent code generation, documentation, and team collaboration. Proven track record of optimizing system performance, leading teams, and delivering user-centric solutions at scale.

Experience

Software Engineer, CentroidSol.com (Remote, Dubai)

Mar 2024 – Present

Tech Stack: Golang, JavaScript/TypeScript, RESTful APIs, WebSockets, Protobuf, Redis, PostgreSQL, MongoDB, Docker, AWS, Linux, GPT APIs

- **Full-Stack Development:** Built comprehensive trading platform with Go backend services and JavaScript frontend, handling real-time data processing for thousands of concurrent users
- **AI-Powered Alert System:** Transformed generic system alerts into personalized notifications using LLM integration, delivering contextual liquidation warnings via Slack and SMS, reducing customer losses by 35% through proactive risk management
- **Intelligent Customer Support:** Architected AI-powered chatbot converting Confluence documentation into vector embeddings stored in Redis VL, implementing sliding window context management and async request/response queues for real-time GPT-powered support via WebSockets
- **Performance Engineering:** Used pprof profiling to identify and resolve memory leaks, achieving 40% reduction in resource usage and improved stability under high-throughput conditions
- **Real-Time Systems:** Migrated data pipelines from HTTP to WebSockets, reducing latency by 60% and improving user experience for time-critical trading operations
- **Distributed Architecture:** Designed fault-tolerant microservices using Redis as cache/message broker, implementing distributed locks, rate limiting, and circuit breakers for 99.9% uptime
- **Security & Scale:** Implemented RBAC for APIs with secure privilege escalation, designed tiered throttling to prevent abuse, and optimized database queries reducing response times by 70%
- **Technical Leadership:** Led backend initiatives across global teams, conducted code reviews, mentored junior developers, and coordinated releases using GitOps practices

Lead Software Engineer, Securiti.ai (Remote, Pakistan)

Nov 2021 – Dec 2024

Tech Stack: Golang, Java, Python, JavaScript, JUnit5, Angular, RESTful APIs, AWS, Kubernetes, HashiCorp Vault, PostgreSQL, Redis

- **Microservices Architecture:** Designed and developed scalable microservices for data privacy platform processing 10TB+ datasets daily, serving enterprise clients with strict SLA requirements

- **Enterprise Security Solutions:** Architected flexible secrets management system supporting AWS Secrets Manager, HashiCorp Vault, and Kubernetes native secrets, enabling seamless enterprise integration and improving security posture across multi-cloud deployments
- **Frontend Development:** Built responsive web interfaces using modern JavaScript frameworks, implementing real-time dashboards and data visualization components for compliance monitoring
- **Performance Optimization:** Replaced HTTP polling with WebSocket + Redis Streams architecture, achieving 50% latency improvement and better user experience in real-time data processing
- **Cloud Migration:** Led AWS SDK v2.x migration project, enhancing reliability and implementing secure API gateway patterns for S3, SQS, and EMR integrations
- **Testing Excellence:** Established comprehensive testing strategy with 5,000+ unit tests in Java/Go, achieving 85%+ code coverage and zero-downtime deployments through robust CI/CD pipelines
- **Technical Leadership:** Managed team of 5 engineers, conducted design reviews, implemented coding standards, and delivered multiple product milestones on schedule. Introduced AI-first development practices, training team on Claude Code, Windsurf IDE, and GPT-4 integration for enhanced productivity
- **AI-Driven Development Excellence:** Pioneered LLM-assisted development workflows using Claude Code for automated code generation, GPT-4 for intelligent refactoring, and Gemini 2.5 for comprehensive documentation creation, improving team velocity by 35%
- **Open Source Contributions:** Enhanced TableSaw library with advanced CSV parsing capabilities, contributing to the broader Java data processing ecosystem

Senior Software Engineer, Afiniti (Hybrid, Pakistan)

Nov 2019 – Nov 2021

Tech Stack: C++17, JavaScript, RESTful APIs, Kafka, PostgreSQL, MySQL, TCP/IP, SSL, WebSockets, Linux

- **Real-Time Reporting System:** Architected microservice-based contact center monitoring platform processing 1M+ events/hour with sub-second latency requirements
- **System Architecture:** Replaced Kafka-based architecture with optimized file-based solution, achieving 1000% throughput improvement and 1500% faster query response times
- **Frontend Integration:** Developed JavaScript-based dashboards and real-time monitoring interfaces for call center operations, improving operator efficiency by 30%
- **Security Implementation:** Built SSL-based communication system supporting multiple CMS protocol versions, ensuring secure data exchange in enterprise environments
- **Performance Engineering:** Implemented high-performance TCP server with connection pooling and optimized SQL queries, supporting 10,000+ concurrent connections

Implementation Engineer, Avanza Solutions (Oman, Somalia, Pakistan)

Nov 2017 – Nov 2019

Tech Stack: Java Spring, .NET, JavaScript, RESTful APIs, SOAP, Oracle, PostgreSQL, ISO-8583, EMV

- **Payment Systems Integration:** Designed secure middleware connecting banking platforms, ATMs, and third-party services, processing millions of transactions with 99.99% reliability
- **Frontend Development:** Built administrative interfaces and monitoring dashboards using JavaScript and modern web technologies for payment system management
- **International Deployments:** Led successful implementations across 3 countries, including MasterCard certification and EMV compliance for major banking institutions
- **Security Compliance:** Ensured PA-DSS compliance for multiple banks, implementing cryptographic standards and secure communication protocols

Junior Software Engineer, InfoTech Group (Pakistan)

Nov 2016 – Nov 2017

Tech Stack: C++, Node.js, Angular 2.0, JavaScript, TypeScript, .NET, RESTful APIs, OAuth, WebSockets

- **Full-Stack Trading Platform:** Developed high-frequency trading application using Angular 2.0 frontend with Node.js backend, supporting thousands of concurrent users
- **Algorithm Optimization:** Reduced trade execution latency by 20% through efficient algorithm design and real-time data processing optimization
- **Frontend Migration:** Led migration from legacy Adobe Flash to modern Angular/JavaScript architecture, improving user experience and maintainability
- **API Development:** Built and consumed RESTful APIs with OAuth authentication, implementing secure client-server communication for trading operations

Education

Awards & Recognition

Certificate of Appreciation

2019

Ivy-Alumni

Awarded for exceptional work in developing next-generation AI solutions at Afiniti, a venture of Columbia and Ivy alumnus Zia Chishti. Recognized for outstanding contributions to backend data layer architecture and API development for AI-powered contact center optimization.

AI-First Development Practices

- **Code Generation & Optimization:** Leveraging Claude Code for automated boilerplate generation, complex algorithm implementation, and intelligent code suggestions, reducing development time by 50%
- **Intelligent Documentation:** Using Gemini 2.5 and GPT-4 for comprehensive API documentation, technical specifications, and code commenting, ensuring 95%+ documentation coverage across projects
- **Advanced Code Reviews:** Implementing AI-assisted PR reviews using LLMs for security vulnerability detection, performance optimization suggestions, and code quality improvements
- **Automated Refactoring:** Employing GPT-4 and Claude for legacy code modernization, design pattern implementation, and technical debt reduction across large codebases
- **Team Productivity Enhancement:** Training developers on Windsurf IDE integration, establishing AI-powered workflows for email communication, and implementing best practices for human-AI collaboration

Open Source Contributions & Projects

- **MCPGen** - Auto-generates multiservice MCP servers from OpenAPI v2/v3 specs. Parses Swagger and Arazzo files, integrates with LLMs for intelligent API coordination and workflow orchestration
- **go-i18n-db** - PostgreSQL-based internationalization library with nested JSON flattening, multi-tenant support, CRUD operations, bulk import/export, and CLI tooling
- **Major Contributions:** Active contributor to quic-go, go-libp2p, jtablesaw, IS08583-go with multiple merged PRs improving performance and functionality
- **Protocol Research:** Exploring cutting-edge Web Transport and HTTP/3 protocols, contributing to next-generation web communication standards
- **Technical Content:** Created educational YouTube content on software development, reaching developers worldwide with practical programming tutorials
- **Community Impact:** 15+ open source pull requests merged across various projects, focusing on performance optimization and developer experience improvements