

KUNAL GANGLANI [FULL STACK DEV AI | RAG SPECIALIST]

- Visa Status: Canada Permanent Resident, Location: Downtown Toronto, Canada
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Seasoned Engineering Leader & Architect with 14 years of experience, Language specializing in backend developer tools, platform engineering, Full stack and AI (Salesforce LWC, React, Typescript, Stenciljs, Redux, Zustand, Angular, Vue.js, Node.js, Elasticsearch, Go, Java, Spring, Springboot, APIGEE, Kotlin, GraphQL, MongoDB, AWS, ECS, Azure, GCP, Docker, CI/CD Harness, Github Actions, Helm, Service Now, Kubernetes, Grafana, Prometheus, OpenTelemetry (OTel), Grafana Loki/Tempo, TraceQL, Nomad, FAISS, Pinecone), GIS SDK, AI/ML (MLflow, Python, PyTorch, HuggingFace, BigQuery, Databricks, NLP, Agent, Prompt Engineering, Spring AI, TensorFlow, Microsoft Azure Microsoft Fabric, Microsoft Foundry, OpenAI GPT, LangChain, RAG, Together AI, Cohere, GraphRAG, LlamaIndex), blockchain (Solidity). Proficient in AI ethics, Copilot, Cursor, AI Powered IDE, ML, cryptographic principles, automation and cloud architecture. Experienced in remote work, microservices, serverless computing. Performance optimization, DevOps, Microsoft Certified Professional.

Functional Domains: Expertise in Building High Performance and Scalable SAAS based Single page web applications based on Banking Domain, Health apps - FHIR & HL7 Standard, Compliance on Accessibility - Accessibility for Ontarians with Disabilities Act (AODA) & WCAG 2.0 guidelines, Building developer tools, CLIs, version-control-integrated backend services (Git/GitHub API automation), observability-first platform engineering (OTel, Grafana stack), Agile Development.

PROFESSIONAL EXPERIENCE

SENIOR STAFF SOFTWARE ENGINEER AT ZEALSIGHT-(CLIENTS - BITWAVE, FIREWORK), MISSISSAUGA **MAR 2022- PRESENT**

- **Firework (RAG AI Video Generation/ Short Videos Platform)** - Spearheaded the development of Firework AI platform leveraging Large Language Models (LLM), Retrieval-Augmented Generation (RAG) workflows and GraphRAG, and LlamaIndex, LangChain to drive innovation in short video generation and live-streaming commerce, AI Chatbot for Walmart leveraging Microsoft Foundry.
- Architected virtual-care video session orchestration for a healthcare end client on Firework's real-time video platform Built the ReactJS encounter UI and Java/Spring Boot backend microservices for session lifecycle, participant roles, tokens, and real-time state.
- Integrated video-conferencing REST APIs / streaming SDKs for session provisioning, participant management, and recording consent (transferable to Pexip / Zoom).
- Implemented secure clinical delivery; authN/authZ, RBAC, per-session access scoping, audit logging for PHI/PHIPA compliance; multi-party low-latency via Apache Kafka.
- Instrumented sessions into AWS OpenSearch and Grafana for encounter monitoring, quality analytics, and operational reporting.
- Built backend tooling and services in Golang and Python integrating with version control systems: GitHub API/Actions automation for repository workflow orchestration (automated PR checks, branch-protection-aware merge pipelines, workflow-dispatch triggers, release automation), and Go services for continuous sync/mirror-style data pipelines with idempotent retry and drift detection.
- Instrumented distributed services end-to-end with OpenTelemetry (traces, metrics, logs) exported to Grafana Cloud (Tempo)
- Designed and implemented Analytics Microservice utilizing Azure OpenAI-based RAG AI / ML, analytics (Microsoft Fabric), and tracking to provide actionable insights to business stakeholders. Designed and implemented Elasticsearch indexes for efficient data retrieval and querying. Developed and optimized Elasticsearch queries using Query DSL and SQL, Postgres, Golang, with AI Powered IDE like Copilot, Cursor, and Windsurf. Optimized video generation with RAG workflows, Apache Kafka, reducing production time by 30%.
- Developed and integrated RAG, GraphRAG with LlamaIndex and NLP to enhance livestream support and product highlighting, resulting in increased revenue for clients. Implemented LangChain-based architecture for efficient content retrieval.
- Designed and implemented CI/CD pipelines using Harness, GitHub Actions, automating build, test, and deployment processes to reduce release cycles by 30%. Managed infrastructure as code with Terraform, provisioning AWS resources like VPC, IAM roles, and S3 buckets for scalable application environments.
- Leveraged AWS services (ECS, Lambda, CloudWatch) to build serverless and containerized architectures, improving system scalability and monitoring. Built automated code-review tooling (Golang/Python) integrated directly with the GitHub pull-request workflow — diff parsing, inline review comments via the GitHub API — reducing manual review time by 15%.
- Automated i18n for WCAG, AODA widget accessibility compliance and automation tests using playwright, cypress and selenium.
- Skills- Nodejs, RAG, LangChain, LlamaIndex, Hugging Face Transformers, Microsoft Azure OpenAI GPT, ML, PyTorch, TensorFlow, Stenciljs, HTML5, CSS3, JavaScript, Typescript, Redux, Zustand, MYSQL, MongoDB, Java, React testing library, Cypress, Python, AWS, CI/CD, Docker, Kubernetes, Java, Springboot, EKS, Cassandra, Oracle, JPA, Kotlin, Nextjs, Pinecone, FAISS
- **Bitwave.io Cryptocurrency Accounting Software** - Developed a sophisticated data service with a seamless user interface with WCAG featuring a dynamic stepper wizard with interactive user guide for efficient bulk transaction imports.
- Architected a scalable & reliable data service (python & nodejs microservices) to ensure smooth communication and data synchronization between the user interface and BitWave. Implemented elegant and performant code to enhance the user experience and maximize productivity throughout the intuitive stepper wizard built with AODA Standards.
- Built a Rust bridge service synchronizing transaction data between the ingestion layer and the accounting system — continuous-loop sync with consistency validation before commit, processing 200k transactions in 5 minutes.
- Maintained and enhanced Solidity smart contracts (dApps) to ensure secure and efficient operations within the ecosystem.

- Developed a cron based system for workflow on GCP, Nodejs, Nextjs, Golang, Python, Rust, AWS, Devops, Azure, NGINX, Docker, Kubernetes, BigQuery, MySQL, Redis, React, Redux, OpenSearch, HL7v2, FHIR, Video Session Orchestration

SENIOR SOFTWARE ARCHITECT AT ([RISE PEOPLE](#), MISSISSAUGA)

Feb 2021 to Mar 2022

- Worked on creating Unified user experience (build on WCAG AODA, GDPR) that encapsulates multiple front end products.
- Built a Golang CLI used org-wide to scaffold company-standard projects — Git repo initialization, templating, and CI wiring baked in — enforcing SOC 2 compliance and dev standards automatically.
- Worked with multiple clients remotely to provide software services and architecture designs with APIGEE and Tensorflow
- Worked on creating Unified user experience with user guide that encapsulates multiple front end products using AI Powered IDE. The user guides helped the company by reducing support queries and improving user adoption rates.
- Created Reusable Visual Components (Developer tools) Updated microservices written in nodejs, golang - REST, following RBAC
- Work towards setting Dev standards for the organization and automating rules to ensure quality of software products
- Skills - React, Zustand, Redux, React Native, Stencil.js, Quiankun, HTML5, CSS3, JavaScript ES6, Golang, Typescript, Node.js, Elasticsearch, BigQuery, Airflow, MongoDB, Cypress(Full Stack), AWS, CI/CD, CMS - Umbraco, WordPress, Split.io, Docker, Amazon EKS, Python, Postgres, Azure, Cassandra, AWS EMR, Spark, Redis, Spring

SOFTWARE DEVELOPMENT ENGINEER AT ([SWIGGY](#), BANGALORE, INDIA)

May 2019 to Oct 2020

- Working as a Senior Developer contributing towards design & development of the application named Maps Galileo, revolved around visualization of data. VertiGIS, Geocortex SDK, GIS SDK, ESRI, ArcGIS API for area boundary detection for delivery orders.
- Wrote Order Cancellation Microservice (using APIGEE) to handle order cancellation along with configuration options for cancellation reason and workflow triggers for replacement/ refunds for the order.
- Project involved requirements gathering from product teams about various use cases that can be onboarded on the application, deployment on product environment, fixing UI defects, WCAG issues on various environment and testing (Selenium, Pytest, Jest). Created React Native apps and Migrated Angular to react app, Stenciljs, Created Microservice in nodejs. Utilized Elasticsearch aggregations and filters for data analysis and reporting. Monitored and optimized AWS infra (ECS, Lambda, RDS, DynamoDB) with CloudWatch dashboards/alarms and Terraform; supported EKS cluster configuration with Flux GitOps.
- Utilized Databricks for large-scale data processing and analytics, building scalable data pipelines and machine learning models to drive business insights and decision-making.
- Analysed current system programs and optimized working in an Agile Model with the team.
- Utilized AWS CloudFormation for infrastructure provisioning, managing RDS, DynamoDB, and API Gateway for high-availability applications.
- Utilize ArcGIS Tracking API to track delivery executive locations. Display real-time delivery executive movements.
- Working on- React, React Native, SAP UI5, HTML5, CSS3, JavaScript (ES6), MySQL, Golang, Bootstrap, Flux, Go, Java, Typescript, Protractor(Full Stack), Docker, EKS, Python Fastapi, Nodejs, MongoDB, GraphQL

SENIOR SOFTWARE ENGINEER AT ([BARCLAYS](#), PUNE, INDIA)

Dec 2017 – March 2019

- Worked as a Senior Developer contributing towards design and development of DSS Framework for UI Components (Made with Angular 5) and Barclays UI React Components (Developer Tools - Made with React). App build following WCAG Standards
- Project involved requirement gathering, testing (pytest, cypress), deployment and defect fixing activities.
- Created Wallet app for Barclays with Web components in React Native app, backend api in golang with Elasticsearch.
- Provided hotfixes for the issues found in production deployment of the software, and provided root cause analysis, fixes and Product maintenance. Worked on A/B testing with Google Optimize with CMS - Umbraco/ React apps.
- Automated Helm-based deployments within Jenkins pipelines, reducing manual intervention and accelerating release cycles by 15%.
- Employed AWS CDK for infrastructure as code, provisioning IAM, VPC, and S3 resources to support development environments.
- Researched ways to enhance the Software solutions and process around its planning, development and maintenance
- Working on- Angular 5, Salesforce LWC, React, Typescript, HTML5, CSS3, MySQL, Redux, Golang, JavaScript (ES6), Nodejs(Full Stack), Azure, Java Spark, AWS EMR, Python Fastapi, Java, GraphQL

DEVELOPER ASSOCIATE AT ([SAP LABS](#), BANGALORE, INDIA)

Nov 2015 – August 2017

- Worked as a UI Developer contributing towards creating a responsive application as a part of HCM Solution package. Built React/SAP UI5 healthcare screens on an S/4 HANA HCM package integrating clinical data via HL7v2 and FHIR standards (Patient/Encounter resources), with OData backend services.
- Evaluated and Analyzed the business requirements of the clients and prepared the technical design documents and architecture documents for the solutions. Integrated VertiGIS, Geocortex SDK, GIS SDK, ESRI, ArcGIS APIs for location-based services
- Was involved in end to end planning, development and testing of the Software application
- Performed Unit testing and end to end testing for the software solutions delivered with Restful APIs
- Fixed bugs reported during the testing phase, and also provided hotfixes for the solution in the production environment. Developed and implemented data backup and restore strategies for Elasticsearch clusters.
- Mentored developers in the team to contribute to the overall solution module
- Developed solutions that adhered to the SAP Fiori Design guidelines, WCAG 2.0 & AODA Accessibility Standards.

- Worked on- SAP ABAP, SAP FIORI, SAP UI5, Flux, MYSQL, HTML5, CSS3, JavaScript, React, Redux, Node, MongoDB, MYSQL, Typescript, Python, and OData backend services, Postgres, Cassandra, Redis, Java JPA

SYSTEMS ENGINEER AT ([INFOSYS](#), PUNE, INDIA)

Aug 2014 – Nov 2015

- Worked on a project with one of the Largest Banking and Insurance service providers in Australia. Worked as a Campaign Developer, developing responsive email campaigns to target clients as per their profile data with the company. This involved the creation of responsive web mail scripts which change with device used, location of the client, the time mails were opened and various other factors.
- Implemented ServiceNow solutions to automate incident management, problem management, and change management processes
- Designed and developed a scalable, fault tolerant, distributed system using the latest technologies of Enterprise Marketing. Created A/B test experiments in Google Optimize, define test objectives, build variants for page elements, set targeting rules, launch experiments, analyze results in the Google Optimize dashboard
- Research and analysed current systems to find optimization opportunities in the Software and deliver the same
- Followed Agile Software development methodology of Test driven development, CI-CD (Continuous Integration and continuous deployment), and alerting and monitoring tools for the production environment
- Project involved requirement gathering, testing, deployment and defect, accessibility WCAG defect fixing activities.
- Worked on - HTML5, WCAG (AODA Standards) CSS3, JavaScript, Angular, Salesforce LWC, jQuery, Chai, Nodejs, Protractor Batch programming, Nodejs, Git, Tomcat, MySQL, Oracle, IBM Enterprise Marketing Management (IBM Unica), IBM Cognos, Spring, JPA, Java, Springboot, Kotlin

FRONT END DEVELOPER AT ([KGTRICKS](#) TECH)

Apr 2011 – Aug 2014

- Focussed on the design and development of tech blog hosting on blogger. Handled blog SEO as well. Was responsible for end to end development and deployment of the blog. Blog traffic grew 500% after work.
- Technologies used - HTML5, WCAG, CSS3, JavaScript, jQuery, Batch programming, CMS - Wordpress, Blogger, Umbraco

EDUCATION & CREDENTIALS

Bachelor of Engineering in Computer Science, with Honours, Rajiv Gandhi Technical University, Bhopal, India. (WES, [ECA](#))

PG. Diploma in Software Marketing from Annamalai University, Chennai

Language - English Achieved CLB 9 English Level on my IELTS Test

Certifications Earned:

- [Salesforce Certified JavaScript Developer I](#) (Javascript & Salesforce Lightning web components)
- [Microsoft Certified Professional \(MCP\)](#)
- [Microsoft Certified Solution Developer \(MCSD\)](#)
- [Microsoft Certified HTML5, CSS3 And JavaScript Specialist](#)

ACHIEVEMENTS

AUTHOR — [KUNALGANGLANI.COM](#) (APR 2011)

My personal technology blog where I share deep dives on AI engineering — LLMs, RAG architectures, and agentic systems — alongside practical lessons from 14 years of building software. Writing publicly keeps me at the edge of the field and reflects a lifelong passion for technology, started as KGTricks in 2011. Received 650k visitors so far.

SELECTED FOR THE INTERNATIONAL FELLOWSHIP PROGRAM AT SAP LABS (APR 2017)

Worked in SAP Walldorf, Germany for the creation of an app for innovative idea named SAP CARE. SAP CARE won the intra-preneurship competition in SAP SE, Walldorf and was also awarded HANA Cloud innovation award.

WON CODE FOR CHARITY HACKATHON AT SAP LABS (MAY 2016)

Developed a Survey App to Create and centrally Manage Multiple Surveys across multiple Locations and get insights of feedback collected.

App Intro Video: <https://goo.gl/SyPC3q>

Github: https://github.com/kunalganglani/Pocket_Survey

AWARDED AS A RISING STAR BY INFOSYS (SEPT 2015)

Developed reusable templates of the campaign flowcharts that were used to accelerate the development of campaigns by 40%.