

DHIMAN SUTRADHAR

Technical Lead | Backend Architect | AI-Native Software Engineer

dsutradhar27@gmail.com | +1 (778) 956-8737 | Surrey, BC, Canada

[linkedin.com/in/dhiman-sutradhar07](https://www.linkedin.com/in/dhiman-sutradhar07)

PROFESSIONAL SUMMARY

Technical Lead and Backend Architect with 15+ years of experience building and shipping production systems, cloud-native web applications, customer-facing SaaS products, internal tools, and workflow automations. Experienced in Java, Spring Boot, Python, FastAPI, AWS, microservices, service-oriented architecture, data stores, queues, event-driven workflows, and cloud infrastructure. Applied AI-native software development using Kiro CLI, Claude, ChatGPT, Strands Agents, prompt engineering, and AI-assisted evaluation to accelerate application development, refactoring, debugging, documentation, and delivery while maintaining security, privacy, reliability, maintainability, and product quality standards. Strong track record translating ambiguous business needs into technical plans, mentoring engineers, and using instrumentation, analytics, and customer-facing metrics to drive iterative product improvements.

CORE SKILLS

Technical Skills: Java, Python, JavaScript, TypeScript, SQL, Spring Boot, Spring MVC, FastAPI, REST APIs, Microservices, Service-Oriented Architecture, Distributed Systems, SaaS, Multi-Tenant Architecture, OOP, Design Patterns

AI & Data: Agentic AI, Strands Agents, Multi-Agent Workflows, AWS Bedrock, Langgraph, Langchain, HealthOmics, Biomedical Data Processing, Prompt Engineering, AI Coding Agents, Kiro CLI, Claude, ChatGPT

Cloud & DevOps: AWS, ECS, EKS, AWS Batch, S3, RDS, IAM, CloudWatch, Docker, Kubernetes, Terraform, GitHub Actions, Jenkins, Amazon ECR, CI/CD, Monitoring, Instrumentation

Databases & Messaging: PostgreSQL, MySQL, MongoDB, MSSQL, Redis, Hibernate ORM, Kafka, JMS, WebSocket

Frontend & Leadership: AngularJS, ReactJS, Bootstrap, Web Applications, Customer-Facing Applications, Architecture Design, Technical Leadership, Mentoring, Product Quality, Documentation, Stakeholder Communication

PROFESSIONAL EXPERIENCE

Technical Lead / Backend Architect | Jun 2018 - Present

Forgeahead Solutions Corp. | Surrey, Canada

- Architected key components of cBioX, a biomedical research and drug-discovery platform that accelerates data preparation, transformation, curation, analysis, and publishing workflows.
- Contributed to cBioX Virtual Research Assistants using Strands Agents, Python, FastAPI, Nextflow, AWS Batch, and ECS, orchestrating multi-agent AI workflows and containerized data-processing pipelines.
- Leveraged AI-assisted engineering tools such as Kiro CLI, Claude, and ChatGPT to accelerate software development, refactoring, debugging, documentation, prompt tuning, and delivery while validating AI-generated artifacts against security, privacy, reliability, maintainability, and product quality standards.
- Designed multi-omics, clinical, imaging, and pharmacological data workflows to help researchers curate, transform, and publish proprietary datasets for secondary analysis.
- Led development of Highwire, a cloud-based construction risk-management platform used by enterprise clients including Google, Intel, Harvard, Tesla, and Samsung, contributing to risk reduction of up to 60%.

- Architected secure, customer-facing, service-oriented microservices using Java, Spring Boot, AngularJS, Kafka/JMS, PostgreSQL, and MongoDB, delivering 99.9% uptime and supporting millions of daily transactions.
- Modernized legacy applications and migrated data across MSSQL, MongoDB, and PostgreSQL, achieving ~50% performance improvement, ~80% lower maintenance effort, and 45% query performance improvement.
- Implemented instrumentation, observability, CI/CD pipelines, and cloud infrastructure delivery using GitHub Actions, Amazon ECR, and EKS, improving release cadence, reliability, analytics visibility, and developer productivity.
- Partnered with product, design, data, QA, and platform stakeholders to translate ambiguous customer and operational needs into scalable backend services, workflow automations, and production-ready releases.

Technical Lead | Oct 2016 - Jun 2018

Forgeahead Solutions Pvt. Ltd. | Pune, India

- Led development of ENACT Solar, a customer-facing SaaS web application for solar and storage asset management, enabling customers to design, monitor, and optimize assets.
- Designed and developed server-side functionality, RESTful APIs, and real-time updates using Java, Spring Framework, Hibernate, and WebSocket for scalable application development.
- Implemented Salesforce data synchronization using Azure Logic Apps, automating business processes and reducing manual effort by 80%.
- Architected database schema and queries for efficient asset data management, improving query performance by 50% and reducing data retrieval time by 40%.
- Configured AWS infrastructure and CI/CD pipelines using Jenkins, Amazon ECR, and ECS, supporting 5x user growth with improved security controls and more frequent releases.

Senior Software Development Engineer | Apr 2014 - Oct 2016

Forgeahead Solutions Pvt. Ltd. | Pune, India

- Designed and led development of a children-focused mobile learning and collaboration platform with educational content, social interaction, and collaborative learning features.
- Developed REST APIs using Restify and responsive web interfaces using AngularJS and Bootstrap to support reliable frontend-backend communication.
- Built a Gmail-integrated communication and ad-hoc project-management solution using Play Framework to streamline collaboration and task coordination.
- Configured AWS environments with custom policies and automation scripts; implemented CI/CD pipelines using Jenkins, Amazon ECR, and ECS to improve deployment efficiency.

Software Engineer / Associate Software Engineer | Jul 2010 - Apr 2014

Forgeahead Solutions Pvt. Ltd. | Pune, India

- Developed MedSolis healthcare collaboration and patient-management software focused on patient engagement, clinician communication, and improved care delivery.
- Built responsive web applications using Backbone.js and hybrid iOS/Android applications using AngularJS and Ionic for cross-platform healthcare access.
- Designed application architecture, integrated WebSocket-based real-time communication, and engineered Spring Framework REST APIs for efficient data handling.
- Supported deployment, maintenance, documentation, issue resolution, and post-launch stabilization with development, QA, and stakeholder teams to improve product quality.

EDUCATION & CERTIFICATION

Bachelor of Technology, Computer Science & Engineering | ICFAI University | 2010

AWS Certified Developer - Associate | Apr 2022