Varun Kakuste

Staff Engineer @ SAP Ariba | Middleware, Auth & API Architectures | Exploring Agentic AI | Product-Minded Technologist | AI-Curious Builder

About

I'm a Staff Engineer at SAP Ariba with 12+ years of experience architecting secure, scalable backend systems. My core expertise lies in middleware design, OAuth-based authentication, and API Gateway architectures - powering cross-system integrations across SAP Ariba, SAP BTP, IAS, Nexus hybrid applications, and Joule (SAP's AI-powered digital assistant).

I lead the design and implementation of token issuance and validation services, and play a key role in enabling cross-team adoption of secure middleware. My work helps product teams move faster by abstracting the complexity of authentication, configuration, and cross-system communication.

While I thrive in enterprise-scale backend environments, I'm also deeply curious about building consumer-facing platforms. I'm currently exploring Agentic AI Engineering - not just to enhance backend performance, but to architect intelligent workflows and eventually form AI-assisted engineering teams. I'm especially interested in applying this to interactive, consumer-focused experiences and platforms.

I bring a blend of backend engineering discipline, security-first thinking, and product-minded creativity - and I'm passionate about using AI to create systems that are intelligent, scalable, and meaningful to end users.

Let's connect if you're working at the intersection of platform engineering, agentic systems, or consumer product innovation.

Experience

 SAP Ariba

Staff Software Engineer

Apr 2023 - Present | Palo Alto, California, United States

- Lead architect for secure middleware services including SAP IAS and SAP Ariba OAuth 2.0 token issuance/validation and API Gateway infrastructure for SAP Ariba CurrentGen Apps and NextGen Nexus Hybrid Apps.

- Designed a scalable, token-based communication framework integrating SAP BTP, IAS, Joule (SAP's Digital Assistant), and third-party services - reducing integration onboarding time by 30%.

- Spearheaded centralized authentication adoption, resulting in a 40% drop in token-related failures.

- Enabled AI-powered workflows in collaboration with SAP Joule teams.

- Upgraded and drove adoption of Wave Protocol 2.0 libraries across 15+ teams.

- Abstracted OAuth 2.0, JWT, token validation, and service-to-service authentication into reusable patterns.

- Served as go-to middleware expert for 10+ application teams.

SAP Ariba

Senior Software Engineer

Apr 2021 - Apr 2023 | Palo Alto, California, United States

- Led initial design of Unified Provisioning and Wave Protocol backend for tenant-aware messaging across apps.

- Implemented PoC and production-grade integration for customer-consented messaging flows.

- Built core libraries to simplify Wave formation and token orchestration.

- Supported early adopters and aligned PoC architecture with SAP multi-app strategies.

SAP Ariba

Software Engineer

Apr 2018 - Apr 2021 | Palo Alto, California, United States

- Built secure middleware components for OAuth 2.0 authentication and API Gateways.

- Developed Open API Developer Platform for onboarding and discovery.

- Migrated legacy auth services to modern OAuth 2.0 microservices.

- Built MockBox microservice for REST API prototyping.

- Developed OAuth SDK and enabled 2LO/3LO adoption.

- Enhanced API performance and observability.

- Led CI/CD pipeline enhancements and release security scanning.

SAP Ariba

New Grad Software Engineer

June 2016 - Apr 2018 | Palo Alto, California, United States

- Developed backend components for token flows and REST APIs.

- Contributed to early API Developer Portal (UI and Swagger generation).

- Implemented Kong-based API Gateway routes and filters.

- Automated onboarding and token validation workflows.

- Supported SDK development, debugging, and testing.

Robin Systems

Software Engineering Intern

Jan 2016 - May 2016 | San Jose, California, United States

- Worked on containerized storage orchestration using Docker and LXC.

- Built automation scripts for testing isolation and benchmarking performance.

- Integrated REST APIs with orchestration engine and monitored system health.

Sikka Software Corporation

Software Engineering Intern

May 2015 - Aug 2015 | Milpitas, California, United States

- Developed backend features for cloud-based analytics tools for dental/vet practices.

- Built dashboards integrating REST APIs and frontend components.

- Used Spring MVC, Hibernate, MySQL and Selenium testing.

Atos India

Software Developer

Sept 2011 - July 2014 | Pune, India

- Developed enterprise Java web apps using JSP, Servlets, and Spring MVC.

- Built APIs and data access layers using JDBC and Hibernate.

- Participated in agile planning and supported UAT testing.

Education

San Jose State University

Master of Science in Software Engineering

Aug 2014 - May 2016 | San Jose, California, United States

- Specialized in Distributed Systems, Backend Development, and Applied Machine Learning.

- Capstone Project: Career Recommendation System

- Built a full-stack career recommendation engine using NLP and collaborative filtering.

- Published IEEE paper: CaPaR: A Career Path Recommendation Framework.

PVG's College of Engineering and Technology, Savitribai Phule Pune University

Bachelor of Engineering in Information Technology

July 2008 - May 2011 | Pune, India

- Completed a 3-year engineering degree with emphasis on programming, web technologies, computer networks, and database systems.

- Focused on Core Java, OOP, DBMS, OS, and full-stack development.

- Participated in open-source initiatives, tech workshops, and competitions.

Sriram Polytechnic, Airoli (MSBTE)

Diploma in Engineering (Information Technology)

July 2005 - May 2008 | Navi Mumbai, India

- Completed a 3-year technical diploma with emphasis on programming, networking, and operating systems.

- Achieved distinction in final board exams under MSBTE.

- Built foundational knowledge in computer architecture and algorithms.

Skills

Backend & Middleware

- OAuth 2.0, JWT, SAML, Token Issuance & Validation

- Middleware Architecture

- RESTful API Design & Development

- Microservices Architecture

- API Gateway (Kong, SAP Ariba Custom)

- Unified Provisioning & Wave Protocol

- Spring Boot, Spring MVC, Java EE

Programming Languages

- Java

- Python

- JavaScript

- SQL

- Shell Scripting

AI / ML & Intelligent Systems

- Agentic AI Engineering (in progress)

- Stanford NLP

- Apache Mahout, LensKit (Collaborative Filtering)

- AI-Driven System Design (Exploratory, Joule Integrations)

Web & Frontend

- AngularJS

- HTML/CSS/JS (basic UI integration)

- Swagger / OpenAPI Spec Generation

DevOps & Tooling

- Docker

- CI/CD Pipelines (Jenkins, SAP internal tools)

- MEND, Fortify, WhiteSource (Security Scans & Compliance)

- Git, GitHub, Bitbucket

- JUnit, Mockito, Selenium

Databases

- MySQL

- MongoDB

- JDBC, Hibernate

Cloud & Identity Platforms

- SAP BTP

- SAP IAS (Identity Authentication Service)

- SAP Joule (Digital Assistant Integrations)

- SAP Ariba NextGen / Nexus Hybrid Apps

- SSO Integrations (SAP SAML Filter Library)

Soft Skills & Collaboration

- Cross-Team Collaboration & Integration Enablement (across multiple countries)

- Technical Mentorship & Onboarding Support

- Platform Evangelism & Adoption Strategy

- Agile / Scrum Participation

- Scrum Master

- Clear Technical Communication (Documentation, Demos, Code Reviews)