SpendOptimo

Amazon AgentCore powered FinOps for autonomous cost optimization

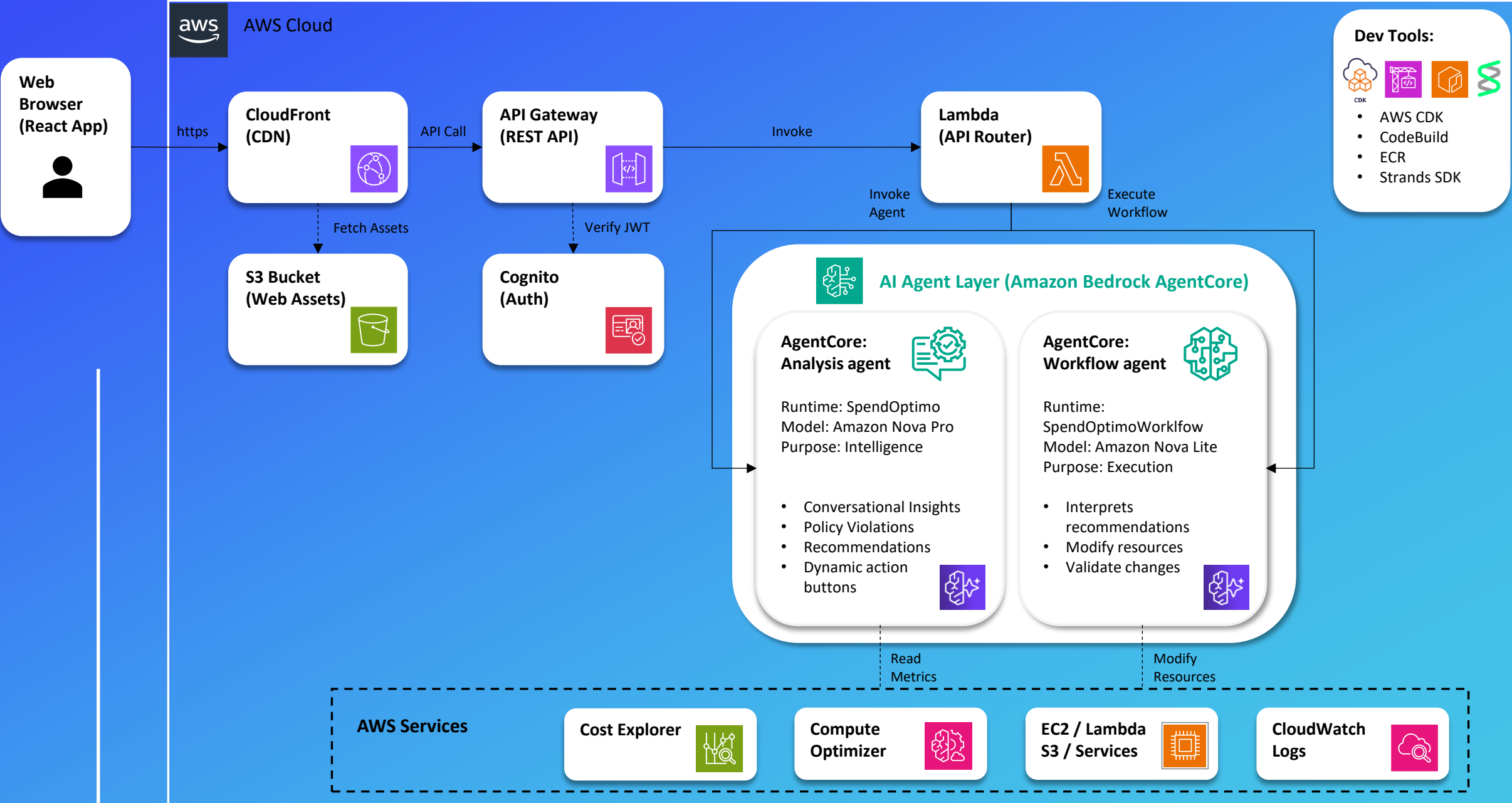**Ajith Joseph**

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Solution Overview

SpendOptimo is a **multi-agent AI system** that doesn't just analyze your AWS costs—it **understands, recommends, and executes** optimizations autonomously. Built on AWS Bedrock AgentCore and Strands Agents SDK, it demonstrates intelligent cloud cost management using agentic workflows.

- ✓ Conversational intelligence - Ask questions, get answers
- ✓ Automated execution - One click to optimize
- ✓ Policy enforcement - Codified rules, not suggestions
- ✓ Multi-service coverage – Easily extend to any services
- ✓ Autonomous agents – No manual intervention

Services Used

Component	Technology	Purpose
Analysis Agent	AWS Bedrock AgentCore + Amazon Nova Pro	High-intelligence reasoning for cost analysis
Workflow Agent	AWS Bedrock AgentCore + Amazon Nova Lite	Lightweight execution engine
Orchestration	AWS Strands Agents SDK	Multi-step workflow coordination
API Layer	Python (Starlette + Mangum)	Lambda-based REST API
Frontend	React + Vite	Modern, fast web interface
Infrastructure	AWS CDK v2 (TypeScript)	Infrastructure as code
Authentication	Amazon Cognito	User identity and JWT tokens
CDN - UI	CloudFront + S3	Static site hosting
Container Registry	Amazon ECR	Docker image storage for Lambda

Architecture

Thank You

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Github: https://github.com/ajosephmass

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