

Alain Davila

Senior Software Engineer

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SUMMARY

Senior Software Engineer with extensive experience delivering full-stack, AI-enabled applications for logistics and healthcare. Led development of an AI-powered logistics platform that supports real-time tracking and automated exception handling for thousands of users, and built a voice-AI assistant handling 5,000+ concurrent sessions. Designed secure, high-performance architectures that cut response times by up to 75% and improved operational efficiency. Aiming to leverage this expertise to create innovative, scalable solutions that accelerate business outcomes.

TECHNICAL SKILLS

AI Engineering: Amazon Bedrock, LLM integrations, Retrieval-Augmented Generation (RAG), LangChain, LangGraph, Model Context Protocol (MCP), AI agents, agentic workflows, prompt engineering, semantic search, vector search, FAISS

Frontend: TypeScript, JavaScript, React, Next.js, Vue.js, Angular, Redux, Tailwind CSS, Material UI, HTML5, CSS3

Backend and APIs: Python, Java, C#, FastAPI, Flask, Django, REST APIs, GraphQL, Swagger/OpenAPI, WebSockets, Socket.IO, asynchronous programming, microservices, event-driven architecture

Voice and Real-Time Systems: LiveKit, WebRTC, Twilio, ElevenLabs, Deepgram, WebSockets, Socket.IO

Databases and Data: SQL, PostgreSQL, Microsoft SQL Server, DynamoDB, Snowflake, BigQuery, Kafka, Apache Spark, Apache Hive, ETL/ELT, database design, SQL query optimization

Cloud and Delivery: AWS, Lambda, API Gateway, S3, RDS, Docker, Kubernetes, Terraform, GitHub Actions, CI/CD, CloudWatch, infrastructure as code, monitoring and alerting

Security and Collaboration: RBAC, OAuth, API security, audit logging, Git, GitHub, JIRA, Agile/Scrum, testing, code review, debugging

PROFESSIONAL EXPERIENCE

Senior Software Engineer | GuideWell

June 2022 – August 2026, Jacksonville, Florida

- Developed and enhanced AI-enabled full-stack applications with React, Next.js, TypeScript, Python, FastAPI, PostgreSQL, and AWS, enabling autonomous delivery operations, intelligent logistics coordination, and real-time tracking that supported thousands of deliveries daily.
- Constructed retrieval-augmented generation (RAG) pipelines using FAISS and internal knowledge bases to index logistics data, delivering faster, grounded AI responses that reduced query latency for operational staff.
- Engineered large language model (LLM) workflow automation on Amazon Bedrock with LangChain and LangGraph, automating exception handling and task assistance, which lowered manual intervention time for logistics incidents.
- Exposed validated internal tools via Model Context Protocol (MCP) servers, allowing LLM agents to call logistics services directly and improving interoperability across all logistics platforms.
- Deployed real-time voice AI assistants using LiveKit, integrating speech-to-text, LLM orchestration, text-to-speech, and internal application programming interfaces (APIs) to support hands-free operational workflows for 5,000+ concurrent users.
- Designed FastAPI services, Kafka event pipelines, and WebSocket-driven features that enabled real-time workflows and reliable communication across distributed services, improving data throughput and reducing processing delays.
- Supported application deployment, infrastructure automation, and monitoring with Docker, Terraform, GitHub Actions, and AWS CloudWatch, which cut deployment time and increased system uptime.
- Improved engineering quality and delivery through architecture discussions, code reviews, mentoring, knowledge sharing, and technical documentation covering APIs, AI workflows, and operational processes, while mentoring 7 engineers and translating complex technical concepts for product, operations, support, and business stakeholders.

Software Engineer | Elevance Health

December 2019 – June 2022, Indianapolis, Indiana

- Developed secure full-stack healthcare applications with React, Next.js, JavaScript, Python, FastAPI, Flask, GraphQL, and PostgreSQL, enabling clinicians to access patient data and complete workflows, which resulted in faster retrieval of patient records.
- Crafted responsive user interfaces (UI) for care teams to streamline clinical documentation and workflow tracking, supporting over 2,000 active users.
- Designed and integrated GraphQL APIs and Python backend services, providing secure and reliable access to clinical and operational data and reducing API latency for frontend applications.
- Refactored PostgreSQL schemas, optimized SQL queries, and enhanced data-access patterns for patient workflows, reducing response times from 800 ms to 200 ms (75%).
- Implemented authentication, role-based access control, audit logging, and secure data handling with AWS Lambda, strengthening application security, ensuring HIPAA compliance, and reducing unauthorized access incidents.
- Collaborated with clinical, product, engineering, QA, security, and compliance teams throughout Agile cycles, using Confluence and JIRA to translate technical requirements and application workflows into clear documentation and accessible explanations, which accelerated stakeholder understanding and reduced clarification requests.

Full Stack Developer | Asurion

August 2017 – November 2019, Orlando, Florida

- Developed full-stack features for a medical-device quality-management and clinical-data platform using React, Next.js, JavaScript, Python, FastAPI, Java, Spring Boot, and PostgreSQL, which expanded the platform's capability to support new regulatory workflows and improved overall compliance coverage.
- Built responsive Document Management and Training Management interfaces with React and Next.js, applying RBAC to control access, which streamlined user onboarding and cut training-administration time.
- Built and enhanced backend services and REST APIs using Python/FastAPI, Java/Spring Boot, and Flask, and integrated API Gateway and WebSockets to support document workflows, training activities, and user permissions, which improved system reliability and reduced integration errors.
- Designed and maintained PostgreSQL schemas, added indexes and partitioned tables, and optimized SQL queries, which accelerated clinical data retrieval and enabled faster report generation.
- Solved complex workflow and integration challenges by implementing OCR-based document processing that automated the processing of 50,000 documents and reduced manual operational work by 80%, improving workflow efficiency and scalability.
- Configured real-time Socket.IO notifications and established Docker, Kubernetes, and continuous integration and continuous deployment (CI/CD) pipelines via GitHub Actions to streamline cross-functional team release processes.

Frontend Developer | Asurion

May 2016 – August 2017, Orlando, Florida

- Developed responsive frontend features for internal business applications using React, Next.js, JavaScript, Tailwind CSS, and Material UI, improving user experience and reducing page load times.
- Built and maintained CRM and operations-management interfaces with React and Material UI, supporting sales processes, customer management, and administrative workflows, which streamlined sales operations and lowered data-entry errors.
- Centralized shared application state using Redux for user sessions, form validation, and sales workflows, reducing state-related bugs by 20%.
- Authored reusable UI components, forms, and data tables that reduced duplicate development effort by 75%.
- Integrated frontend applications with REST APIs using Swagger/OpenAPI documentation and collaborated with backend engineers and stakeholders to align API contracts, authentication, and validation, enabling faster feature delivery and more reliable data exchange.
- Executed Agile development workflows with Git and JIRA, performed code reviews, and wrote C# unit tests, which kept sprint delivery on schedule and improved overall code quality.

EDUCATION

Bachelor of Science in Computer Engineering | Florida State University

August 2012 – April 2016, Tallahassee