

# Daniel Tofan - Software Engineering Leader

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## Professional Summary

Visionary software engineering leader and architect with over 15 years of experience driving technological innovation, leading high-performing teams, and architecting scalable AI-driven platforms. Proven track record of successfully integrating cutting-edge AI technologies, such as OpenAI and Anthropic APIs, DALL-E, GPT-4, and custom LLMs, to create transformative SaaS solutions.

Skilled in strategic planning, team building, and delivering complex software projects that leverage machine learning and natural language processing. Passionate about fostering a culture of continuous improvement and innovation, with a strong focus on harnessing the power of AI to revolutionize industries.

Seeking a challenging role as a CTO or VP of Engineering where I can drive business growth through AI innovation, scale engineering organizations, and deliver products that create measurable competitive advantage.

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## Key Achievements

- Founded CodeCrank.ai, a CTO-led development agency, and launched with 3 production-ready portfolio applications achieving perfect performance scores and demonstrating advanced algorithmic innovation.
- Built an AI-driven SaaS application that generates creative ad copy and images using OpenAI's API, GPT-4+, DALL-E 3, and a proprietary algorithm, taking the project from concept to launch.
- Achieved a perfect 100/100 PageSpeed score globally by architecting an edge computing infrastructure for a Progressive Web App with sub-100ms response times.
- Scaled a health-tech SaaS platform 100 times, from 4K to 400K+ users within one year, by leading a 12+ person cross-departmental team and leveraging AI-powered personalization and automation.
- Reduced infrastructure costs by 30% and improved stability by architecting a microservices-based platform on Google Cloud Platform (GCP), incorporating AI-driven optimization techniques.

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## Skills

### **Artificial Intelligence & Machine Learning**

OpenAI and Anthropic APIs, GPT-4+, Claude, DALL-E, NLP, Chatbots, Midjourney 5+, Stable Diffusion, Fine Tuning and RAG (Ollama, Flowise, Langchain), Vector Databases, Prompt Engineering

### **Big Data & Analytics**

Data Engineering, ETL, Data Warehousing, BigQuery, Predictive Analytics

### **Cloud Platforms & Architecture**

GCP, AWS, Serverless functions, Microservices, SaaS, Edge Computing

### **Software Development Methodologies**

Agile, Scrum, Kanban, Test-Driven Development

### **Programming Languages**

JavaScript, TypeScript, Java, SQL, Groovy, Python

### **Web Technologies**

Vue.js, Nuxt.js, Node.js, Angular, HTML5, CSS3, REST, GraphQL, Quasar Framework

### **Databases**

MongoDB, PostgreSQL, MySQL, Firestore, BigQuery

### **DevOps & Infrastructure**

Firebase, CI/CD, Infrastructure as Code, Docker, CircleCI

### **Security & Compliance**

HIPAA, SOC2, GDPR, Penetration Testing, OWASP Top 10, Prompt Injection Defense, Secure Coding Practices

### **Leadership & Soft Skills**

Strategic Planning, Team Building, Project Management, Stakeholder Management, Cross-Functional Collaboration, Roadmapping

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# Professional Experience

## CodeCrank.ai

**Founder** | October 2025 - Present

- Founded a CTO-led SaaS MVP development agency delivering production-ready applications for startups in 2-6 weeks with full code ownership.
- Built 3 live portfolio applications showcasing advanced technical capabilities: SegmentLite (customer data platform with GDPR compliance), SeatGenius (algorithmic seat optimization with 8.7M+ test iterations), and crAlvings (AI-powered dining experience with 108 Flux Ultra-generated images).
- Achieved 100/100 PageSpeed scores through edge computing architecture and rigorous performance optimization across portfolio demos.
- Established transparent pricing model and CTO-led review process ensuring production-ready code with comprehensive testing, security best practices, and 30-day bug-fix warranties.

## PickAFav

**Founder** | June 2024 - Present

- Founded a startup focused on gamifying decision-making through a Progressive Web App (PWA) with anonymous voting capabilities.
- Achieved a perfect 100/100 PageSpeed score globally by leveraging edge computing architecture and optimization best practices.
- Developed a responsive, high-performance voting interface using Vue.js 3 and Quasar Framework for seamless user experience across all devices.
- Engineered a scalable backend infrastructure ensuring sub-100ms response times for concurrent users, handling real-time voting with minimal latency.

## OmniTrain.ai

**Co-founder & Fractional CTO** | October 2023 - Present

- Spearheaded the development of AdCraft, an innovative AI-driven SaaS application that generates creative ad copy and images using OpenAI's API, diffusion models, and a proprietary algorithm.
- Built the application from the ground up using Nuxt3, Quasar, OpenAI LLMs, and Node microservices on Google Cloud Platform (GCP).
- Designed and implemented a scalable microservices architecture on GCP using cutting-edge technologies and best practices.
- Integrated OpenAI's Assistants API, GPT-4 Turbo, DALL-E 3, Midjourney, Stable Diffusion, and Replicate to power natural language processing and image generation capabilities.

- Implemented advanced AI techniques including few-shot learning, prompt injection defense, and custom fine-tuning using Ollama.
- Implemented a seamless payment processing system using Stripe, ensuring smooth user experience and secure transactions.

## CareValidate

**Vice President of Engineering** | Atlanta, GA | 2021 - 2023

- Spearheaded the engineering department, driving strategic planning and execution of software development initiatives that contributed to signing multiple Fortune 500 clients and achieving a 25% increase in annual revenue.
- Scaled a health-tech SaaS platform by 100x, from 4K to 400K+ users within one year, by leading a 12+ person cross-departmental team across multiple time zones and leveraging AI-powered personalization and automation techniques.
- Architected a highly scalable and cost-effective microservices-based platform on Google Cloud Platform (GCP), reducing infrastructure costs by 30% and improving system stability and performance.
- Achieved and maintained compliance with stringent healthcare industry regulations, including HIPAA, SOC 2, and GDPR, by implementing robust security measures, conducting extensive audits, and performing regular penetration testing.
- Designed and built sophisticated data pipelines to ingest and process large volumes of historical data and analytics into BigQuery, enabling advanced business intelligence and decision-making.
- Created over 30 automations, 15 interactive dashboards, and 20+ Slack bots to provide real-time insights and streamline workflows across the organization.
- Leveraged Midjourney and Stable Diffusion generative AI for image generation and generative text AI to create optimized prompts for image generation models.
- Implemented Agile methodologies, including Scrum and Kanban, to optimize software development processes, resulting in a 50% increase in release frequency and faster time-to-market.
- Collaborated closely with customer support teams to gather user feedback, translate client requirements into actionable technical specifications, and deliver customer-centric solutions that exceeded expectations.
- Expanded and mentored the engineering team, growing the department by 2.5x through effective hiring, training, and talent development initiatives.
- Facilitated regular planning meetings, code reviews, and demo sessions to foster a culture of continuous improvement, knowledge sharing, and innovation within the engineering organization.

## Open Up Resources

**Director of Engineering** | Portland, OR | 2021

- Developed and implemented a comprehensive 4-week onboarding program for new engineering hires, resulting in a 30% reduction in time-to-productivity.
- Established and enforced rigorous documentation standards and processes across the engineering organization, improving cross-team collaboration, knowledge sharing, and project efficiency.
- Aligned engineering priorities and strategies with organizational goals, ensuring technical initiatives were tied to business objectives.

## InvestEd

### Co-founder and CTO | 2021

- Co-founded a fintech education startup aimed at democratizing stock market knowledge and reducing the wealth gap.
- Built the MVP for a pre-funding startup focused on educating people on stock investment strategies.
- Managed full-stack development from concept to initial product launch.

## Human Care Systems

### Team Lead, Platform Configuration | Boston, MA | 2020 - 2021

- Led a team of senior engineers to develop a mission-critical administration web application using Vue.js, Vuex, Node.js, and MongoDB.
- Managed team cadence through Agile methodologies, mentoring engineers in best practices and delivering a high-quality product.
- Partnered with product and QA teams to deliver solutions that met all stakeholder requirements.
- Implemented GitFlow, CircleCI for CI/CD, and Docker for containerization.

## Data Recognition Corporation

### Sr. Software Engineer | Maple Grove, MN | 2018 - 2020

- Built secure cloud applications on AWS microservices (EC2, Lambda, API Gateway) using cutting-edge technologies including Node.js, GraphQL, and PostgreSQL.
- Reduced product defects by creating shared UI libraries and instituting 100% unit test coverage for 30+ UI components using Angular 8, Jasmine, and Material Design.
- Elevated junior engineers' skills and productivity through targeted mentoring, contributing to a 65% increase in code coverage and a 30% reduction in regression errors over 6 months.
- Achieved AWS Certified Cloud Practitioner certification (2020).

## Vital Text Systems

### Principal Software Engineer | 2018 - 2019

- Implemented the full web presence using Vue.js and Nuxt (server-side rendered website, authentication, user profiles, REST API integration).
- Designed a serverless pipeline using AWS services to replace a monolithic Azure stack, saving thousands of dollars in monthly costs.
- Created multiple Slack-based tools for internal use to obtain usage statistics and metrics for promoting the company's product.

## IDEA Education

**Sr. Software Engineer** | Manhattan, KS | 2013 - 2018

- Delivered key front-end and back-end features for a SaaS platform serving 200+ academic institutions using AngularJS, Groovy/Grails, and AWS serverless services.
- Architected deployment pipelines improving release frequency from monthly to weekly releases.
- Collaborated with product and UX teams to translate requirements into high-quality, user-friendly experiences.
- Utilized AWS microservices (Lambda, Step Functions, SNS, SQS, DynamoDB, API Gateway), Node.js, and MongoDB.

## Lexmark International, Inc.

**Software Engineer** | Lexington, KY | 2011 - 2013

- Created test automation framework using Java, JUnit, and Selenium, reducing QA cycles by 20% across 450+ engineers globally.
- Designed and implemented internal device management platform using Grails, MySQL, and AngularJS adopted by 500+ cross-functional team members.
- Contributed to Lexmark's Innovation Days, developing POCs that showcased emerging technologies like AngularJS and Google visualization APIs.

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## Certifications and Coursework

- Artificial Intelligence Foundations: Prompt Engineering, Machine Learning, Building NLP Apps, Art of Prompting, Generative AI for Business Leaders and Creative Pros, ChatGPT for Small Businesses
- AWS Certified Cloud Practitioner
- HIPAA Security and Awareness (360training)
- Hands-on Data Science and AI for Healthcare
- Research and Write using Generative AI Tools
- Google Cloud Platform Big Data and Machine Learning Fundamentals
- Google Cloud Platform Fundamentals: Core Infrastructure

- Software Architecture and Microservices
  - Product Management
  - Managing and Leading Developers
  - Blockchain Basics and Beyond
  - Data Science Methodology
  - Python Essentials
  - UI/UX Best Practices
  - Node.js: Microservices
  - What Is Web3?
  - SUN Certified Java Programmer (2002)
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## Education

### **Georgetown University**

Ph.D. and M.Sc., Chemistry | Washington, DC | 2001

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## Publications

- Computer Technology for Chemical Educators
- General Chemistry Workbook