

Will Griffin

programmer

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Senior Software Engineer and Technical Lead with nearly 30 years of experience architecting scalable cloud solutions and leading engineering teams. Expert in Cloud-Native DevOps (Kubernetes, FluxCD), modernizing legacy systems, and integrating Generative AI (LLMs) into enterprise workflows. Proven track record of delivering end-to-end SaaS platforms, from high-volume syndicated content networks to complex ERP systems, with a focus on 100% Infrastructure as Code (IaC).

TECHNICAL SKILLS

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|-------------------------|---|
| CLOUD & DEVOPS | Kubernetes, FluxCD, GitOps, NixOS, CDKTF, Tailscale, AWS, Docker, Terraform, GitHub Actions, FreeBSD |
| LANGUAGES | TypeScript, JavaScript, SQL, PHP, Python, Perl, VBA |
| FRONTEND | SvelteKit, React, Next.js, Vue.js, Tailwind CSS, Material Design 3, Hugo |
| BACKEND | Node.js, Express, GraphQL / PostGraphile, Sails.js, DuckDB, SQLite / LibSQL, PostgreSQL, Turborepo, Spring Framework |
| AI & INTEGRATION | LLMs, Claude Code, OpenAI API, RAG Pipelines, Prompt Engineering, Model Context Protocol, ComfyUI, Agentic Workflows |
| ARCHITECTURE & PRACTICE | Systems Architecture, Distributed Systems, Infrastructure as Code, Team Leadership, SaaS Platforms, Monorepo / Frameworks, Performance / Scale, Security & Auth, Media Pipelines, OCR / PDF Parsing |

EXPERIENCE

AI-powered local news network — 13 production community sites across Central Alberta, built on the Happy Vertical ecosystem.

Multi-Agent SaaS Network 13 production sites

Launched a network of 13 hyperlocal news sites (e.g., bentleyalberta.com) powered by a multi-tenant SaaS dashboard that orchestrates a suite of specialized AI agents sharing a unified database via Single Table Inheritance (STI).

SaaS Platforms Agentic Workflows LLMs Systems Architecture PostgreSQL

Municipal Governance Agent

Autonomous agent monitoring municipal portals (CivicWeb/SharePoint) using PDF parsing and OCR to generate source-linked meeting coverage and automated journalism.

Agentic Workflows OCR / PDF Parsing LLMs OpenAI API RAG Pipelines

Generative Video Pipeline

Managed automated media workflows orchestrating performers, characters, and scenes through complex ComfyUI workflows and custom diffusion models.

ComfyUI Media Pipelines Agentic Workflows

Predictive Intelligence Agents

Developed agents for automated hyperlocal weather forecasting and sports statistical analysis for real-time content delivery.

Agentic Workflows LLMs Python

Operational & DevOps Agents

Engineered agents for autonomous social media performance tracking/posting and automated GitHub repository management.

Agentic Workflows GitHub Actions GitOps

Monetization Engine

Developed a decentralized ad network with weighted distribution, impression tracking, and automated registration workflows.

Node.js SaaS Platforms Systems Architecture

Open-source ecosystem for vertical AI agents and local knowledge bases — 80+ packages across multiple repositories.

Agentic Development

Extensively leveraged AI-native development tools including Claude Code, Gemini, and Codex as primary interfaces to orchestrate the construction of the 80+ package s-m-r-t ecosystem, utilizing agentic workflows for complex refactoring, test generation, and architectural consistency.

Claude Code Agentic Workflows LLMs Prompt Engineering

Platform SDK

Architected a standalone, 30-package TypeScript monorepo providing decoupled foundation abstractions. Built using Adapter and Factory patterns, it provides a unified interface for 6+ AI providers (OpenAI, Anthropic, Gemini, Bedrock), a multi-dialect database layer (DuckDB, LibSQL, Postgres) with integrated vector search, and robust file/parser modules.

TypeScript Monorepo / Frameworks Turborepo Systems Architecture DuckDB SQLite / LibSQL PostgreSQL
OpenAI API RAG Pipelines

s-m-r-t Framework

Designed an opinionated, 37-package application framework enabling "define-once" development. Implemented AST-based code generation to auto-generate REST APIs, CLI tools, MCP servers, and migrations from class definitions. Engineered a comprehensive UI framework including a global app provider, dynamic theming system, and a library of 15+ reusable domain modules (Commerce, Ledgers, Content, Projects). Features include voice-enabled form inputs and integrated LLM validation.

TypeScript Monorepo / Frameworks Model Context Protocol LLMs Systems Architecture Node.js

Hybrid Cloud Infrastructure 82% infrastructure cost reduction

Designed a hybrid Kubernetes cluster spanning Hetzner Cloud and on-premises GPU nodes (NVIDIA RTX 4090) using NixOS, FluxCD, and Tailscale. Achieved 82% cost reduction via strictly typed infrastructure (CDKTF) and automated GitOps pipelines.

Kubernetes NixOS FluxCD Tailscale CDKTF GitOps Infrastructure as Code TypeScript

Technical Lead @ digitalfuel.io

Mar 2021 - Dec 2024

React & Hugo Hybrid Architecture 100/100 PageSpeed

Engineered a high-scale content network using React for dynamic frontend components and Hugo for static template rendering, achieving perfect 100/100 PageSpeed scores across the Bettoday network.

React Hugo Performance / Scale JavaScript TypeScript

GitOps Automation

Implemented a robust FluxCD, Terraform, and Kubernetes architecture to automate the deployment and scaling of the syndicated content network, ensuring high availability and zero-downtime updates.

FluxCD Terraform Kubernetes GitOps Infrastructure as Code Distributed Systems

AI-Driven Content Systems

Architected a syndicated CMS utilizing ChatGPT to automate information extraction, content generation, and SEO optimization, significantly scaling production capacity.

OpenAI API LLMs Prompt Engineering Systems Architecture

High-Scale Network Management

Built and managed the infrastructure for Bettoday, a network of regional sports sites (flagship: bettodayusa.com) and associated state-specific domains.

Kubernetes Performance / Scale Distributed Systems SaaS Platforms

Integrations Engineer @ xmatters.com

Mar 2020 - Dec 2020

Quality Assurance Innovation

Engineered a novel code coverage solution to identify untested paths and improve overall codebase reliability.

JavaScript Node.js

Security & Auth

Implemented 3-legged OAuth for seamless user association between Slack and xMatters.

Security & Auth Node.js

Automation

Developed scripts to automate database patching, reducing a multi-day manual process to a single-click operation via the Spring Framework.

Spring Framework SQL Performance / Scale

Technical Lead @ omnium.io

Oct 2015 - Mar 2020

System Architecture

Led the end-to-end architecture and delivery of a comprehensive SaaS ERP solution for the apparel industry.

Systems Architecture SaaS Platforms Node.js Vue.js

Team Leadership Team of 7 engineers

Managed a team of 7 developers, overseeing the stack (Node.js, Vue.js, AWS Aurora/ECS) to handle complex workflows including inventory allocation, shipping, and warehousing.

Team Leadership Node.js Vue.js AWS SaaS Platforms

Technical Director & Partner @ Internet Media Corp

Jun 2003 - 2008

Distributed Systems & High Availability

Engineered a high-availability server cluster using FreeBSD and the Spread Toolkit (group communication/ordered messaging) to handle massive, non-linear traffic spikes. This architecture served as the backbone for B2B syndication, providing leased data feeds to major global media entities.

FreeBSD Distributed Systems Systems Architecture Performance / Scale

High-Throughput Media Pipelines Petabyte-scale transfers

Designed and implemented a custom PHP-based video streaming engine — including a flash pseudo-streaming server built to avoid Flash Media Server licensing costs — with usage-based billing and granular data-tracking architectures to handle petabyte-scale transfers and complex monetization with 100% audit accuracy.

PHP Media Pipelines Systems Architecture Performance / Scale

External Technical Leadership

Acted as a Tier-3 technical consultant for ISP Infrastructure teams. Provided specialized training and operational standards to ISP senior engineers to optimize their hardware and network layers for high-throughput media environments.

Team Leadership Distributed Systems Performance / Scale

Lead Programmer & Technical Consultant @ Green Room Media

Apr 2000 - Dec 2002

Engineering Team Scaling Grew team to 12

Partnered with media buyers to build a full-service digital agency from the ground up, scaling the engineering organization to 12 developers to support rapid business expansion and high-traffic platform growth.

Team Leadership Performance / Scale

High-Stakes Gaming Platforms

Architected full-stack solutions for global online gaming clients, including betting exchange clones (Canbet), PPC search engines, and members-based sports predictive modeling tools.

Systems Architecture Perl PHP SQL

Software Engineer @ Dish Clothing

Nov 1999 - Mar 2000

ERP Migration

Built a custom MS Access/VBA manufacturing system to replace a legacy Filemaker database, handling inventory, orders, and material calculations.

VBA SQL

Mobile Innovation

Wrote Windows Mobile barcode software to assist with inventory and invoicing.

VBA

OTHER EXPERIENCE

Software Developer

Vizworx · 2020-2021

Kubernetes/AWS CDK infrastructure, e-sports bracket algorithms, Terraform templates.

Kubernetes AWS Terraform Infrastructure as Code

Founder

coink.it · 2013-2015

Cryptocurrency platform with blockchain API and secure wallet server.

Node.js Security & Auth Systems Architecture

Software Engineer

iWinback · 2011-2012

Web-based call center application replacing legacy Delphi system.

JavaScript PHP

Lead Developer

Gogiro Internet · 2009-2011

Multi-tenant affiliate SaaS platform on AWS.

AWS SaaS Platforms PHP

Software Engineer

Matrix Content · 2002-2003

Relocated to Los Angeles; built web store and backend for image/video licensing business.

PHP SQL Media Pipelines

Software Engineer

Cannabis Culture Magazine · 1997-1999

EDUCATION & CERTIFICATIONS

Agile Product Ownership

UBC Sauder School of Business

Issued Feb 2018 · Credential ID: II863

CELTA (Certificate in Teaching English to Speakers of Other Languages)

Issued Jul 2016

Earl Marriott Secondary School

Network administrator for Novell NetWare and AppleTalk networks. Built a hallway broadcast system using distributed televisions. Set up the school's first student internet workstation. Self-taught; programming since age 10.