

RYAN KING

SENIOR FULL-STACK SOFTWARE DEVELOPER

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PROFESSIONAL SUMMARY

Senior Full-Stack Software Developer with 10+ years of experience designing, developing, testing, deploying, and maintaining scalable web applications, enterprise software, RESTful APIs, and AI-powered applications. Strong expertise in JavaScript, TypeScript, React, Next.js, PHP, Node.js, Python, Java, C#, .NET, ASP.NET Core, SQL, PostgreSQL, Docker, AWS, and CI/CD.

Experienced across the complete software development lifecycle, including requirements analysis, system design, software architecture, frontend development, backend development, API development, database design, authentication and authorization, automated testing, performance optimization, debugging, deployment, monitoring, and production support.

Strong background in AI and Generative AI application development, including LLM integration, OpenAI API integration, prompt engineering, conversational AI, AI agents, AI automation, intelligent data processing, structured AI responses, context management, and AI-powered product features. Experienced integrating AI services with React, Next.js, Node.js, Python, .NET, REST APIs, PostgreSQL, third-party services, and cloud-based applications.

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, PHP, Python, Java, Rust, Go, C#, SQL, HTML5, CSS3

Frontend Development: React, Next.js, Vue.js, Nuxt.js, Angular, Tailwind CSS, responsive web design, reusable components, component architecture, state management, accessibility, frontend optimization

Backend Development: Node.js, Express.js, PHP, Laravel, Python, Django, Java, C#, .NET, ASP.NET Core, Ruby on Rails, REST APIs, RESTful services, Web APIs, microservices, API development, authentication, authorization, input validation, error handling, business logic

AI & Generative AI: LLM integration, OpenAI API, AI APIs, prompt engineering, prompt-driven workflows, AI agents, conversational AI, AI automation, generative AI, AI-powered applications, intelligent data processing, structured AI responses, context management, third-party AI services

Databases: PostgreSQL, MySQL, MongoDB, Redis, SQL, database design, data modeling, query optimization, indexing, database performance, relational databases

Cloud & DevOps: AWS, Docker, Linux, Git, GitHub, CI/CD, deployment automation, containerization, environment configuration, version control, cloud deployment

Testing & Quality: Unit testing, integration testing, automated testing, API testing, regression testing, debugging, code review, performance testing, error handling, quality assurance

Software Engineering: Object-oriented programming, software architecture, system design, design patterns, clean code, SOLID principles, Agile/Scrum, SDLC, requirements analysis, technical documentation, performance optimization, scalability

PROFESSIONAL EXPERIENCE

SENIOR FULL-STACK DEVELOPER

Northbridge Digital Ltd — United States | Remote | January 2021 – May 2026

- Designed, developed, and maintained scalable full-stack web applications using React, TypeScript, Next.js, Node.js, Python, Java, C#, .NET, PHP, Laravel, and ASP.NET Core, delivering production-ready functionality across frontend and backend systems.
- Architected and implemented RESTful APIs, Web APIs, microservices, authentication and authorization systems, database schemas, business logic, and third-party integrations.
- Developed backend services using Node.js, Python, Java, C#, and .NET, integrating application services with PostgreSQL databases, REST APIs, external platforms, and frontend applications.

- Designed responsive and reusable frontend architectures using React, Next.js, TypeScript, JavaScript, HTML5, CSS3, and Tailwind CSS, improving maintainability and consistency across application interfaces.
- Designed and implemented AI-powered application features using LLM APIs and OpenAI API, including conversational AI, intelligent data processing, automated content generation, AI-assisted workflows, and AI automation.
- Developed prompt engineering and structured LLM workflows using context management, response validation, structured outputs, error handling, and application-level business rules to improve reliability and consistency of AI functionality.
- Built AI integrations connecting LLM services, REST APIs, databases, authentication systems, third-party services, and internal business logic, enabling end-to-end AI-powered application workflows.
- Developed AI agent-style workflows that connected user requests with application services, business rules, external APIs, and data sources to automate multi-step processes.
- Integrated AI functionality into production applications while addressing API reliability, latency, validation, security, error handling, and scalability requirements.
- Optimized PostgreSQL queries, database access, API processing, frontend rendering, and backend services to improve application performance and scalability.
- Improved software reliability through unit testing, integration testing, API testing, regression testing, automated validation, debugging, code reviews, and systematic root-cause analysis.
- Designed and maintained CI/CD pipelines and Docker-based development environments, supporting automated testing, repeatable builds, deployment automation, and reliable releases.
- Deployed and supported cloud-based applications using AWS, Docker, Linux, Git, and GitHub, maintaining consistent development and production workflows.
- Reduced technical debt through refactoring, reusable components, architectural improvements, code reviews, and application modernization.
- Investigated production incidents and performance bottlenecks across frontend, backend, API, database, and AI integration layers, implementing preventative fixes and reliability improvements.
- Collaborated with product managers, designers, engineers, QA teams, and stakeholders on requirements analysis, technical design, architecture, development, testing, code review, deployment, and production support.
- Participated in Agile/Scrum ceremonies, sprint planning, backlog refinement, estimation, technical discussions, iterative development, and release planning.
- Delivered maintainable software following SOLID principles, object-oriented programming, design patterns, clean-code practices, secure development principles, and software engineering standards.

BACK-END DEVELOPER

Cedar Stack Solutions — Germany | Remote | January 2018 – December 2020

- Developed and maintained scalable backend services and RESTful APIs using Node.js, Python, SQL, and database-driven application architecture.
- Designed API endpoints, backend business logic, data models, authentication, authorization, validation, error handling, and integrations with external services.
- Developed maintainable backend components using object-oriented programming, clean-code principles, SOLID principles, reusable architecture, and software engineering best practices.
- Designed and optimized PostgreSQL and MySQL databases, including schema design, data modeling, indexing, query optimization, and database performance improvements.
- Optimized backend processing and SQL queries to improve API response times, application performance, scalability, and database efficiency.
- Implemented secure authentication and authorization workflows and strengthened API validation to improve data integrity and application reliability.
- Integrated backend services with React/frontend applications, REST APIs, third-party platforms, databases, and external services, supporting end-to-end application functionality.

- Developed unit tests, integration tests, API tests, and automated regression tests to improve backend quality and reduce recurring defects.
- Investigated production issues using debugging, logging, root-cause analysis, and performance analysis, implementing fixes to improve system reliability.
- Used Git, GitHub, Docker, Linux, and CI/CD workflows for source control, containerized development, automated testing, and deployment.
- Collaborated with frontend developers, QA engineers, product stakeholders, and other developers to define API contracts and deliver complete software features.
- Participated in Agile/Scrum development, requirements analysis, sprint planning, code reviews, testing, technical discussions, and production releases.

FRONT-END DEVELOPER

Harborline Systems — Birmingham, United Kingdom | August 2015 – December 2017

- Developed responsive, accessible, and maintainable web applications using JavaScript, React, HTML5, CSS3, and reusable component architecture.
- Built reusable frontend components and UI patterns to improve development consistency, maintainability, and feature delivery.
- Translated business requirements, wireframes, and UI designs into responsive and cross-browser-compatible user interfaces.
- Implemented client-side functionality, form validation, API integrations, interactive interfaces, and data-driven application features.
- Integrated frontend applications with REST APIs and backend services, supporting end-to-end application workflows.
- Improved frontend performance through component optimization, efficient rendering, code organization, asset optimization, and reusable design patterns.
- Investigated and resolved UI defects, browser compatibility issues, API integration problems, and frontend performance bottlenecks.
- Collaborated with backend developers, designers, QA teams, and stakeholders throughout the software development lifecycle.
- Used Git-based development workflows, code reviews, debugging, testing, and Agile/Scrum practices to deliver production-ready frontend features.

SELECTED PROJECTS

AI-POWERED FULL-STACK APPLICATION

- Designed and developed an AI-powered full-stack application using React, Next.js, TypeScript, Node.js, Python, PostgreSQL, REST APIs, and LLM APIs.
- Integrated OpenAI API and LLM-based services to deliver conversational AI, intelligent content generation, automated data processing, and AI-assisted workflows.
- Designed prompt engineering strategies using structured prompts, context management, response validation, structured outputs, and application-level business rules.
- Developed AI orchestration services connecting LLM functionality with REST APIs, databases, authentication, business logic, and third-party services.
- Implemented AI agent-style workflows capable of coordinating multiple application operations and external API interactions.
- Built validation and error-handling mechanisms for AI-generated responses to improve reliability and production readiness.
- Developed responsive React/Next.js interfaces for AI-powered functionality using reusable and maintainable components.
- Implemented unit testing, integration testing, API testing, Docker, Git, and CI/CD to support reliable development and deployment.

API-DRIVEN WEB PROJECT

- Developed a full-stack web application using Next.js, React, TypeScript, Node.js, PHP, Laravel, PostgreSQL, and REST APIs.
- Designed reusable frontend components and scalable backend API services with clear separation of application responsibilities.
- Implemented authentication, authorization, database integration, API validation, error handling, and third-party API integrations.
- Optimized SQL queries and application performance to improve backend responsiveness and database efficiency.
- Applied automated testing, API documentation, Git workflows, Docker-based development, and CI/CD practices.
- Collaborated across frontend and backend layers to deliver maintainable end-to-end application functionality.

EDUCATION

BSc (Hons) Computer Science

University of Central Lancashire — Preston, United Kingdom

April 2010 – June 2015

Relevant coursework: Software Engineering, Web Development, Databases, Algorithms, Computer Systems, and Application Development.

CERTIFICATIONS

Professional Web Development Certificate — freeCodeCamp, 2018

LANGUAGES

English — Fluent