

DANIEL BLANCO

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PROFESSIONAL SUMMARY

Results-driven Lead Web Developer with 9+ years of experience building scalable web applications, AI-powered automation systems, and enterprise integrations. Proven track record delivering high-traffic platforms serving 100K+ users with significant performance optimizations. Expertise in full-stack development with PHP, Laravel, React, JavaScript, AWS infrastructure, and AI/ML integration using LLMs, RAG systems, and machine learning frameworks. Strong background in team leadership, having led 10-person development teams and mentored junior developers for 4+ years. Specialized in WordPress/CiviCRM/Moodle integrations, AI-driven internal tools, blockchain development, and implementing testing frameworks for enterprise-level applications. Complemented by data science skills in Python, Pandas, and machine learning with practical experience building intelligent automation systems and advanced RAG architectures.

TECHNICAL SKILLS

Programming Languages: PHP, JavaScript (ES6+), Python, HTML5, CSS3, SQL

Frameworks & Libraries: Laravel, React.js, WordPress, jQuery, Bootstrap, Tailwind CSS, FastAPI

AI & Machine Learning: LangChain, OpenAI API, Anthropic Claude API, Ollama, Voyage AI, LLM Integration, RAG (Retrieval-Augmented Generation), Natural Language Processing, Prompt Engineering, Vector Embeddings

CMS & Platform Integration: WordPress, CiviCRM, Moodle LMS, Custom Plugin Development

Databases: MySQL, PostgreSQL, Redis, MongoDB, Vector Databases (pgvector)

Testing & Quality Assurance: PHPUnit, Jest, Cypress, Test-Driven Development (TDD), Code Review

Build Tools & Package Managers: Webpack, Vite, Composer, NPM, Yarn

Cloud & DevOps: AWS (EC2, S3, RDS, Lambda, CloudWatch), Docker, Docker Compose, CI/CD, Jenkins

Monitoring & Error Tracking: Sentry, AWS CloudWatch, Performance Optimization, Application Monitoring

Server & Hosting: Apache, Nginx, Linux (Ubuntu, CentOS), Windows Server, High-Traffic Optimization

Tools & Version Control: Git, GitHub, GitLab, Bitbucket, Jira, Confluence, Tree-sitter

CSS Preprocessors: Sass, Less, PostCSS

APIs & Integration: RESTful APIs, GraphQL, OAuth, JWT, Third-party API Integration, Webhooks

Data Science & Analytics: Python, Pandas, NumPy, Machine Learning, Data Analysis, Statistical Modeling

Methodologies: Agile, Scrum, Test-Driven Development (TDD), Code Review, QA Testing

Specialized: Blockchain Development, Payment Gateway Integration, PCI DSS Compliance, Performance Optimization, AI Automation, AST Parsing

PROFESSIONAL EXPERIENCE

Back-End Developer

Douglass Digital | Cambridge, UK | May 2021 – Present

- Architect and develop robust CRM systems and internal business tools using PHP, Laravel, and React.js, serving 100,000+ active users across multiple high-traffic platforms
- Design and implement AI-powered internal tools and automation bots using LLM integration (OpenAI API, Ollama) to streamline business workflows, reducing manual processing time by 60% for routine tasks
- Build intelligent automation systems leveraging natural language processing for document analysis, data extraction, and content generation, improving operational efficiency across multiple departments
- Lead development of custom WordPress, CiviCRM, and Moodle LMS integrations and extensions, creating seamless data flow between platforms for enterprise clients
- Optimize application performance through code refactoring, MySQL query optimization, and caching strategies (Redis), reducing page load times by 10 seconds on high-traffic sites
- Implement comprehensive testing strategies using PHPUnit, Jest, and Cypress to ensure code quality and reduce production bugs by 35%
- Develop AI-assisted code review tools and intelligent debugging systems to accelerate development cycles and maintain code quality standards
- Mentor and conduct code reviews for junior developers over 4 years, establishing best practices, design patterns, and modern development workflows using Git, Composer, and NPM
- Manage AWS cloud infrastructure including EC2 instances, S3 storage, RDS databases, and CloudWatch monitoring; configure Apache and Nginx servers for optimal performance and security
- Integrate Sentry error tracking and AWS CloudWatch for proactive application monitoring and rapid issue resolution
- Build and maintain Webpack-based build pipelines for frontend asset optimization and deployment automation
- Design and implement RESTful APIs for seamless integration with third-party services, mobile applications, and internal microservices

Lead Developer

Secret Trees | Remote | Jul 2018 – Dec 2020

- Successfully launched Secret Trees ICO platform using blockchain technology, managing end-to-end development, testing with PHPUnit, and production deployment
- Reorganized and led 10-person offshore development team, implementing agile methodologies and improving project delivery speed by 30% and code quality metrics
- Spearheaded migration from on-premise hosting to AWS cloud infrastructure (EC2, S3, RDS), enhancing scalability and implementing robust disaster recovery protocols
- Achieved PCI DSS compliance for payment processing systems, ensuring data security standards for financial transactions
- Established development workflows and best practices including code review processes, Git branching strategies, automated testing, estimation, staffing, training, and post-implementation support

Chief Technology Officer

Learningecu Ltd | Remote | Apr 2017 – May 2018

- Directed all IT infrastructure projects and implementations across Linux (Ubuntu, CentOS) and Windows Server environments
- Managed development team of 5+ developers, overseeing web application development using PHP, MySQL, and modern JavaScript frameworks
- Renegotiated vendor and hosting contracts, achieving \$50,000+ in annual operational cost savings
- Delivered \$200,000 budget surplus through strategic resource management, process optimization, and cloud migration
- Introduced People/Process/Technology framework across CIO and CMO teams, improving cross-departmental collaboration and project delivery

Senior Blockchain Developer / CTO

Halcyon Ventures | Remote | May 2018 – Jul 2018

- Led 7-person engineering team in developing blockchain-based solutions and smart contracts
- Designed and implemented high-performance RESTful APIs integrating multiple third-party blockchain solutions and cryptocurrency exchanges
- Identified and resolved critical performance bottlenecks and security vulnerabilities in blockchain infrastructure through code optimization and security audits

Senior Front-End Developer

Preferati Inc | Remote | Feb 2018 – May 2018

- Developed responsive corporate websites for high-profile clients using HTML5, CSS3, JavaScript, and jQuery with emphasis on user-centered design and accessibility standards
- Created custom HTML email templates and redesigned website sections to improve user experience, resulting in increased engagement metrics

Front-End Developer

ImpactmediaLTD | Remote | Aug 2016 – Apr 2017

- Built responsive web interfaces using HTML5, CSS3, JavaScript, and Bootstrap; enhanced existing platforms with modern frontend technologies and improved cross-browser compatibility

Web Developer

Eliptico & Software Criollo | Venezuela | Feb 2014 – Jul 2016

- Developed full-stack web applications using PHP, MySQL, JavaScript, and CSS; gained foundational experience in modern web development practices, version control with Git, and agile methodologies

PERSONAL PROJECTS

Codebase Intelligence Engine - RAG-Powered Developer Q&A System

- Advanced RAG (Retrieval-Augmented Generation) system that indexes GitHub repositories and answers natural language questions about codebases with cited file paths and line numbers
- Implemented AST-aware chunking using Tree-sitter to extract semantic code units (functions, classes, methods) for improved retrieval accuracy compared to naive text splitting
- Built full pipeline: GitPython for repository cloning, Voyage AI for code embeddings, pgvector for approximate nearest-neighbor search, and Anthropic Claude for answer synthesis with citation requirements
- Technologies: Python 3.12, FastAPI, React 18, Vite, Postgres 16, pgvector, Tree-sitter, Voyage AI, Anthropic Claude API, Docker Compose

JobFlow Dashboard - AI-Powered Job Application Management System

- Full-stack application combining Next.js frontend with FastAPI backend, featuring AI-assisted cover letter generation and application review workflows using LLM integration
- Implemented Ollama for local LLM processing with worker orchestration for background AI tasks and compliance-first automation controls
- Technologies: Next.js, FastAPI, Docker, Ollama, LangChain, PostgreSQL, VPS Deployment

JobFlow Capture - Cross-Browser Extension

- Chrome and Firefox extension for automated job posting capture with intelligent data extraction from multiple platforms (LinkedIn, Indeed, Glassdoor)
- Technologies: Chrome Extension API, JavaScript, DOM parsing, RESTful API integration

Automated Trading Bot (Cryptocurrency)

- Algorithmic trading bot using machine learning for cryptocurrency markets with automated decision-making based on technical indicators and pattern recognition
- Technologies: Python, Pandas, NumPy, Machine Learning, API Integration, Real-time Data Analysis

Sports Analytics & Betting Strategy Bot

- Comprehensive sports betting analysis system using machine learning algorithms to evaluate odds, generate data-driven predictions, and identify value opportunities
- Technologies: Python, Pandas, Machine Learning, Statistical Analysis, Predictive Modeling

EDUCATION

Bachelor of Engineering in Computer Science

Universidad José Antonio Páez | Venezuela | 2008 – 2013

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

Data Science Certificate

CoGrammar | Completed 2024

- Specialized training in Python, Pandas, NumPy, Machine Learning algorithms, and data analysis techniques with practical applications in predictive modeling and statistical analysis

Software Development Lifecycle

University of Minnesota | 2018

ADDITIONAL INFORMATION

Languages: English (Fluent), Spanish (Native)

Professional Interests: AI/ML integration, RAG systems, LLM applications, vector databases, open source contribution, machine learning applications in fintech, algorithmic trading, intelligent automation systems, continuous learning in emerging technologies