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SOFTWARE ENGINEER & AI DEVELOPER

I am an AI-focused Fullstack Engineer with 3+ years of experience building scalable backend systems, cloud infrastructure, and AI-powered automation features. I combine strong backend engineering skills (Node.js, Python, FastAPI, REST) with modern AI tools such as LLMs, embeddings, vector search, OCR, and automation agents to create intelligent, multilingual, and data-driven applications. design secure, modular, and maintainable systems deployed on AWS (EC2, Lambda, IAM, S3), Dockerized environments, and CI/CD pipelines.

PROFESSIONAL EXPERIENCE

Havenocode

May 2025 - Present

AI Software Engineer

As an AI & Full-Stack Engineer, I design, develop, and maintain backend services, AI-powered features, and modern web applications built with Node.js, Python, FastAPI, and Next.js. My work connects classical backend engineering with LLM-based automation, vector search, document processing, and cloud-native infrastructure.

Accomplishments:

- Built, maintain, and continuously develop a full-stack Node.js (MVC architecture) web application leveraging AI to automate public tender submissions for a major supplier in Poland. The platform, deployed on AWS with monitoring and basic DevOps practices, integrates backend services, AI-based document processing, and a modern frontend to streamline workflows, reducing tender preparation time by 99%.
- Developed a production-ready FastAPI micro-servis leveraging AI and OCR to process scanned PDF documents, extract key data from contracts, and automatically validate compliance of contract details. The solution significantly reduced manual verification time and improved data accuracy in business-critical processes.
- Implemented cloud-based infrastructure on AWS (EC2, IAM, S3, CloudWatch) with basic DevOps practices, including application deployment, system monitoring, alerting, and logging, ensuring stability, security, and scalability of AI-powered backend services.
- Designed and implemented a full-stack service marketplace platform for the Spanish market, built with Next.js, Node.js, TypeScript, PostgreSQL, Prisma, and AWS. Delivered an end-to-end architecture covering core backend services, admin panel, provider dashboard, and responsive client interface. Implemented provider onboarding, multilingual profile creation, portfolio management, messaging flows, category trees, subcategories, radius-based geolocation targeting, and advanced listing logic with drafts, auto-archiving, refreshing, and multi-tier paid plans (Free/Plus/Premium) integrated with Stripe. Built a powerful search engine supporting location, category, specialization, keyword, and language filters. Added AI-driven automatic translations into 10 languages, Integrated SendGrid for transactional emails and automated account flows. Delivered cloud infrastructure on AWS with Docker, CI/CD, monitoring, logging, and scalable production deployment supporting real user growth.
- Actively contributed to improving engineering workflows and product direction, proposing architectural enhancements, automation opportunities, and AI-powered features that reduced repetitive tasks, streamlined development processes, and helped clients adopt more efficient operational practices.
- Designed scalable backend and AI architectures by defining module boundaries, data flow, API contracts, caching strategies, and cloud deployment patterns—resulting in systems that were easier to maintain, extend, and onboard new developers into.

- Architected and developed core modules of a large-scale investment platform using Next.js, TailwindCSS, and shadcn/ui, contributing across frontend and backend architecture; designed and implemented a comprehensive legal partner/entity management system supporting multiple legal personality types across countries with full data-lifecycle operations (registration, validation, sanitization, archiving, deletion, and processing); built advanced administrative dashboards for volume tracking, entity monitoring, and operational analytics using optimized server actions and strict query validation; implemented enterprise-grade authentication and security mechanisms including Magic Link login, 2FA, RBAC permissions, encryption practices, and GDPR-compliant data handling; developed a cross-entity group aggregation module enabling shared data views across multiple person/entity types; improved performance and scalability through server-side caching strategies, optimized data fetching with React Query, and query performance tuning to reduce server load and enhance UI responsiveness; owned features end-to-end from architectural decisions and refactoring to code reviews and pull-request approvals ensuring maintainable and scalable code standards; integrated external communication services (email and SMS workflows) for notifications, verification, and operational alerts; and established unit-testing practices to increase reliability and reduce regression risk during active development cycles.
- Architected multi-agent AI development workflows using Claude Code, orchestrating specialized autonomous agents dedicated to refactoring, documentation, testing, review, and code generation tasks, enabling parallelized problem-solving and controlled multitasking across complex engineering activities.
- Designed modular “agent skill” systems and reusable prompt libraries that encapsulated domain knowledge, coding patterns, and architectural conventions, allowing agents to perform deterministic, repeatable actions rather than ad-hoc responses.
- Implemented task-decomposition and planning strategies (planning agents / plan-mode workflows) to break large engineering objectives into scoped, verifiable subtasks, maintaining human control while increasing execution speed and reducing cognitive load during large refactors and feature implementations.
- Developed context-aware automation pipelines by integrating MCP servers and external API knowledge sources, enabling agents to reference live documentation, codebase patterns, and historical decisions while preventing blind or hallucinated outputs.
- Engineered permission-scoped agent environments with role-based command/tool restrictions, verification checkpoints, and explicit approval gates to ensure operational safety, prevent destructive actions, and maintain production integrity.
- Automated cross-discipline outputs including API documentation, OpenAPI schema generation, PR descriptions, commit summaries, and unit test scaffolding, improving communication quality and reducing manual documentation overhead.
- Established structured prompt engineering methodologies emphasizing explicit over implicit instructions, source-pointing, pattern referencing, and symptom-driven debugging approaches to improve consistency and reduce ambiguity in AI-generated results.
- Implemented human-in-the-loop validation frameworks and guardrail prompts to detect hallucinations, enforce review cycles, and maintain high code quality standards despite autonomous agent execution.
- Standardized internal AI usage guidelines and training materials, enabling broader team adoption while preserving governance, transparency, and repeatable best practices for AI-augmented engineering.
- Increased engineering throughput and code consistency by ~40% by combining multi-agent orchestration, reusable skill systems, and controlled autonomy, while maintaining full developer oversight and verification responsibility.

Piwik PRO

October 2022 - Present

Technical Support Engineer

As a Technical Support Engineer, I troubleshoot issues, develop tools, and optimize workflows to boost efficiency. I script, debug, and integrate advanced web analytics for accurate tracking, while automating processes and improving authentication to reduce manual work and enhance system reliability.

Accomplishments:

- Developed custom tracking solutions with JavaScript & Tracking Client, improving data accuracy and debugging.
- Delivered expert troubleshooting for complex web integrations, ensuring seamless data flow.
- Automated data-fetching via JavaScript & APIs, cutting manual effort by ~50%.
- Built a Node.js lookup script simplifying user authentication.
- Created an internal debugging tool (React, Firebase, Redux) on Netlify with Piwik PRO integration.
- Developed a Python/OpenAI chatbot automating 70% of client queries (95% accuracy, 10+ hrs saved/month).
- Set up automated data exports to Azure Blob, AWS S3, BigQuery & SFTP for secure integrations.
- Wrote/optimized Confluence docs, reducing info search time by 50–70% and improving knowledge sharing.

KEY COMPETENCIES

Core Backend: Node.js, Python, FastAPI, Express.js, NestJS, REST APIs, Webhooks, JWT, OAuth, Prisma

AI/ML: OpenAI, Claude, Gemini, Mistral, LLMs, RAG, Embeddings, OCR, Vector Search (Qdrant), NLP, Prompt Engineering, AI Agents

Web & Frameworks: Next.js, React, TypeScript, JavaScript ES6+, TailwindCSS, React Hooks, Redux, RWD

DevOps & Cloud: AWS (EC2, S3, IAM, Lambda, CloudWatch), Docker, Linux, GitHub Actions, CI/CD, Heroku, Networking, Load Balancing

Databases: PostgreSQL, MongoDB, MySQL, Redis, Qdrant, Firebase, S3 Storage

Tools: Git, GitHub, Postman, Insomnia, Jira, Confluence, Analytics, Technical Documentation, Debugging

Technical Support: Debugging, Documentation, Issue Resolution, Client-Facing Solutions

CERTIFICATIONS

AI_devs 3 Agents | 2024

AI_devs 3 is a 5-week practical course in the use of Generative AI tools (OpenAI, Anthropic, Groq, Ollama), in which we will fully use the greater capabilities of large language models and, combined with programming skills, build autonomous and semi-autonomous systems, referred to as "Agents".

<https://credsverse.com/credentials/6d7030b4-c367-4add-94f1-1c30b49c162f>

AI Devs 2 - Connect GPT-4 with application and automation logic | 2024

A 5-week practical course on combining generative AI tools with application logic and automation tools.

<https://credsverse.com/credentials/6d7030b4-c367-4add-94f1-1c30b49c162f>

EDUCATION

Maria Curie-Skłodowska University - Lublin, Poland

Graduate Diploma in Business and Law
