Markiyan Pyts(CV)

AI Solutions Architect

Contact Information

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About Me

I am a Solutions Architect leading enterprise and product teams in modern AI and cloud initiatives. I love to work with AWS infrastructure as a code, OpenAI APIs, AI Agents, MCP and more.

I am also comfortable with Salesforce clouds including Agentforce

Top Skills

- AI Apps Engineering (OpenAI API, OpenAI Agents SDK, MCP, LangChain)
- AWS Infra As A Code (AWS CDK, Cloud Formation)
- Node.js
- Python
- Serverless & Microservices
- REST APIs, GraphQL
- MongoDB(mongoose ODM), Atlas DB, DynamoDB
- Technical Projects Planning
- Leadership & Technical Leadership
- React/Next.js/TanStack
- Actively Using Claude Code to plan and deliver MVPs and POCs faster then ever before(Spec Driven Agentic AI Powered Development)
- Have solid understanding of AI model results Evals and Goldens gathering

Other Skills

Infrastructure: Docker, AWS ECS, AWS Lambda, AWS SQS, AWS API Gateway, AWS Event Bridge, AWS DynamoDB, AWS Amplify Hosting, AWS Fargate, AWS Step Functions, AWS S3, AWS DLQ (Dead Letter Queue), Cloudflare Pages/Workers, Heroku, GitHub Package Registry

Additional BD Skills: Serverless Framework, Beautiful Soup, Rust, Scrapy, Serde, MongoDB transactions, SQL, Yeoman (CLI tools)

E-commerce/CRM Platforms: SFCC, SFRA, OCAPI, SCAPI, SLAS, SFCC Page Designer, Salesforce Commerce Cloud, Salesforce Composable Storefront, Salesforce Flows, LWC, AURA, Shopify

Frontend Technologies: HTML, CSS, JavaScript, TypeScript, React Router, React Hooks, React Hook Forms, React Native(Expo), Zustand, TailwindCSS, SASS, PWA, Google Lit, Babylon.js, Alpine.js, Vue.js, Vite, Tanstack Router, jQuery

Testing & Security: Cypress, Artillery and Playwright(for API load testing) in pair with AWS ECS, OAuth 2.0

Performance & Optimization: Performance Optimization, Google Lighthouse

Design & User Experience: Figma, UI/UX Design, Data Visualisation, Design front-end architecture and solution blueprints, Mermaid (for architectural diagrams)

Pre-sales: Delivering Project Estimates, Customer Facing Workshops, Presentation Skills

Version Control/CI CD: GIT, Github Actions, AWS CodePipeline

Marketing/Presentation: Facebook Ads, Final Cut Pro, GTM

Experience

Technical Architect

OSF Digital Innovation Team (2025 - Present)

Working on shipping and maintaining AI products with OpenAI API, AI Agents and Cloud Infra for them. Very passionate about MCP protocol that makes AI agents so useful these days.

Senior FD Solution Architect With Full Stack Focus

OSF Digital Innovation Team (2019 - 2025)

Worked on Innovation initiatives and projects inside OSF innovation team focusing on Headless technology(Next.js, SF Composable Storefront, AWS Infra) and AI. During this time I also learned a lot about BD tech worked with Nodejs, Python, Rust and more

SFCC Front End Solution Architect

OSF Digital (2017 - 2019)

Planning FD architecture and leading teams on multiple enterprise e-commerce projects.

Front End Developer/Lead

OSF Digital (2012 - 2017)

Worked as FD dev/technical lead in product and e-commerce projects

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Flagship Projects In OSF Digital Innovation Team (2019 - 2025)

Company: **OSF Digital**

Department: Innovation Team

Enterprise AI Assistant Platform

Developed an advanced AI chat system similar to ChatGPT, specifically tailored for internal company use with vectored organisational data.

Core Features:

- OpenAI Streaming API integration
- Next.js frontend with real-time streaming
- Advanced vector database/data sources for company knowledge
- Custom prompt system and conversation threading(user being able to talk to multiple specialised AI bots inside single thread conversation)
- File chunking and vectorisation pipeline
- Expert bots for specialized topics (e.g., Salesforce Flows)
- Automatic data source selection based on context
- Used AWS CDK and SQS queue event driven architecture during Atlas Database Migration to the new data structure of our internal v2 API. To help our BD architect compress many weeks of thread messages migration into under 1 day of time. I made a system that spawned a fleet of thousands parallel AWS lambdas each processing it's own AI conversation thread as a long running job with retry mechanism based on DLQ. While it worked just fine next time doing something like this I will use Lambda step functions which might make it easier.

Future Development: Currently researching MCP (Model Context Protocol) tools integration with OpenAI Agents SDK to enhance capabilities and user experience. I did not own vectorisation part but I am familiar with flow there. In modern Agentic apps vectorisation is slowly being replaced by MCP tools that can serve real time data to the customer accessing it via API but this is still big part of the puzzle so I am looking forward to work with vector databases more.

AI-Powered SEO & Content Quality Monitoring System

Built an intelligent system for a major e-commerce brand that analyzed web pages and provided SEO optimization recommendations while detecting broken links.

Technical Implementation:

- Python-based scraping engine using Beautiful Soup and Scrapy processing hundreds of pages per brand website
- Use LangChain Framework
- AWS CDK infrastructure implementing Fat Lambda(it was big and long living enough to host LangChain at a time) pattern
- Serverless architecture: AWS Lambda → SQS Queue → Fargate Serverless (Fat Lambda concept) containers for parallel processing
- Dead Letter Queue for failed scrape tracking
- API Gateway REST endpoints connected to frontend BFF
- OpenAI GPT-4 integration with sophisticated retry logic for SEO tag generation

Challenges Solved: Overcame GPT-4's character counting limitations through custom control logic

Impact: Automated SEO compliance and broken link detection at enterprise scale

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Legacy Documentation Automation System

Collaborated with another architect to create automatic markdown documentation for legacy SFCC and SFDC projects.

Technical Approach:

- Rust-based metadata scraping with serde library and xml parsing lib
- Parsed SFCC/SFDC metadata files and cartridges
- OpenAI GPT-4 augmentation for contextual descriptions
- Used Mermaid to create architectural diagrams in markdown

- Automated markdown generation pipeline

Result: Comprehensive documentation for legacy systems that would have taken months to create manually or would not be created at all due to the costs and time constrains.

OSF Performance Monitor

Developed a comprehensive performance monitoring product that continuously tracked e-commerce website performance and accessibility trends for OSF customers.

Technical Architecture:

- Built a Node.js CLI tool published via GitHub Package Registry (chosen for private package hosting without npm costs)
- Integrated GitHub Actions for automated performance monitoring using Google Lighthouse
- Implemented Vue.js frontend displaying native Lighthouse HTML reports and custom trend visualisation
- Designed MongoDB Atlas NoSQL database architecture storing Lighthouse JSON reports
- Created Node.js REST API with Mongoose ODM supporting MongoDB transactions for data integrity

Impact: Enabled proactive performance optimization and accessibility compliance tracking for enterprise e-commerce sites

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Page Designer Headless(API First) Migration System

Architected an API-first migration solution for Salesforce Commerce Cloud's Page Designer CMS, enabling headless applications to leverage existing CMS investments.

Key Innovations:

- Pioneered content preview functionality in legacy Page Designer admin (still unavailable in Salesforce Composable Storefront)
- Developed sophisticated system exposing SFCC controller-based page structures as REST API endpoints
- Created Yeoman-based CLI tool automating complex installation processes
- Implemented three-part architecture: React UI components(powered by system that understood page data structures from BD to build landing pages), SFCC cartridge CMS component models, and Composable Storefront custom REST APIs

Business Impact: Saved enterprise clients thousands of dollars monthly by eliminating need for separate CMS subscriptions

Additional Contributions: Created comprehensive documentation and mentored development teams on implementation

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Older SFCC Enterprise Projects (2012 - 2019)

Company: **OSF Digital**

Note: Due to NDA agreements, specific client names cannot be disclosed. Projects are referenced by industry and scope.

Leading Outdoor Sports & Recreation Multi-Brand Corporation, Front-end Solution Architect

Worked with a major American corporation owning multiple outdoor sports and recreation brands. As Front-end Solution Architect I ensured that SFRA architecture is setup correctly to handle multiple brand sites at peak performance possible (over 18 brands were in the pipeline and our multisite reference application needed to support this and allow brand specific customisations). I ensured best practices are followed and helped team to use latest web capability.

Key Achievements

- Developed a new approach with code splitting which allowed reference application to support multiple brand sites without losing performance.
- Achieved 2x better lighthouse score using SFCC compared to other released SFRA based projects released in same period

Platform: Salesforce Commerce Cloud

Team Size: 20+

Global Cosmetics Brand, Front-end Solution Architect

Architected an innovative CMS system based on SFCC content assets that revolutionized content management for a leading cosmetics brand. The system allowed customers to modify content without needing to touch HTML, resembling modern headless CMS systems years before they became mainstream.

Key Achievements

- Designed a component-based architecture that enabled drag-and-drop content management
- Implemented intuitive interfaces for managing content through text fields and image uploads rather than HTML editing
- Eliminated the need for technical staff to manage content, empowering marketing teams
- Received excellent customer feedback for dramatically simplifying content operations

- Created a future-proof solution that continues to be used in the enterprise today

Platform: Salesforce Commerce Cloud

Team Size: 10+

Impact: This pioneering approach to content management predated modern headless CMS solutions and demonstrated forward-thinking architecture design

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Major Gaming Company Headless Migration, Consulting Solution Architect

Worked as a consulting SA during a major gaming company's headless SFCC storefront migration from SFRA to custom Headless(API First) Next.js app. My experience from QSR accelerator(more about it in below sections) was useful in defining a secure customer authentication system with SFCC SLAS API.

Technology: Salesforce Commerce Cloud SCAPI, SLAS, Next.js, React

Team Size: 20+

Additional Enterprise Projects: Worked with leading brands in fashion/apparel, cosmetics, telecommunications, gaming, and luxury goods industries

Professional Development & Continuous Learning

Udemy Certifications

I maintain a strong commitment to continuous learning, having completed over 2000 hours of professional development courses. Key certifications include:

AI & Machine Learning

- **MCP Crash Course: Complete Model Context Protocol** (June 2025) - Certificate
- **LangChain - Develop LLM powered applications** (July 2023) - Certificate

Cloud & AWS

- **Ultimate AWS Certified Developer Associate 2023** (February 2023) - Certificate
- **Serverless Framework Bootcamp: Node.js, AWS & Microservices** (July 2023) - Certificate
- **Build a Secure Data Lake in AWS using AWS Lake Formation** (July 2022) - Certificate
- **AWS Serverless Microservices with Patterns & Best Practices** (February 2023) - Certificate

Frontend & React Development

- **React - The Complete Guide (incl Hooks, React Router, Redux)** (November 2020) - Certificate
- **React Native - The Practical Guide [2023]** (May 2023) - Certificate
- **Progressive Web Apps (PWA) - The Complete Guide** (February 2021) - Certificate
- **3D Programming with WebGL and Babylon.js for Beginners** (June 2019) - Certificate

E-commerce & Platforms

- **Shopify Theme Development: Online Store 3.0 + TailwindCSS** (July 2025) - Certificate
- **Salesforce Certified Platform Developer I (LWC & AURA)** (April 2023) - Certificate

Testing & Security

- **Cypress: Web Automation Testing from Zero to Hero** (July 2024, 10 hours) - Certificate
- **The Nuts and Bolts of OAuth 2.0** (June 2021, 3.5 hours) - Certificate

Marketing & Design

- **Facebook Ads & Facebook Marketing Masterclass 2023** (September 2023) - Certificate
- **Learn Figma - UI/UX Design Essential Training** (March 2021) - Certificate

Salesforce Certifications

- Salesforce Certified B2C Commerce Developer
- Salesforce Headless API First Accredited Professional
- Salesforce Agentforce Specialist

Personal Initiatives

B2C COMPONENTS COLLECTION

Collection of reusable SFCC Page Designer components useful to launch storefronts faster.

Technology: SFCC Page Designer

OSF Headless Startup Kit

Accelerated transition to headless(API first) commerce by building a RefApp from scratch. Enabled seamless communication with SFCC through OCAPI, creating a decoupled architecture. Utilised modern technology stack to deliver scalable solution.

Technology: Salesforce Commerce API, OCAPI

OSF Modules System

Implemented a custom CMS system powered by SFCC content assets that resembles modern headless CMS UX, it allowed our enterprise customer to manage content without knowing any html(this was more that 7 years ago and was big deal back then). Designed in a block-style format for reusable components, accelerating merchandising and streamlining content management. This system is being used by this Canadian home decor brand even today, so it stood the test of time. Customer was happy and gave great feedback.

OmniCommerce

OSF Digital stack of products for Composable Storefront.

Key Achievements: Introduced Preview Feature for Page Designer headless, that was not available from Salesforce at a time

Technology: Salesforce Composable Storefront, SCAPI

QSR Accelerator

OSF Digital headless solution for quick service restaurants.

Developed Fully Custom Headless Reference Application with Next.js and SFCC SCAPI APIs

Technology: Next.js / Salesforce Commerce API

Recommendations

Gerard Szatvanyi

Chief AI Officer, Founder, OSF Digital

LinkedIn Profile

"I've worked closely with Markiyan as he progressed from a junior front-end developer to a trusted technical leader on our team. He's consistently shown strong technical skills, reliability, and a natural curiosity that drives him to explore and master new technologies. His work has ranged from building user interfaces to designing AI-based systems, always with a practical focus and clear results. Markiyan is thoughtful, dependable, and brings solid value to every project. He would be a great addition to any team looking for a capable and technically curious AI architect."

Education

Master's Degree In Computer Science

Lviv Polytechnic National University (2007 - 2012)

Went through advanced studies in software engineering, algorithms, AI and systems architecture. Strong foundation in theoretical computer science and practical problem-solving.

Languages

English(advanced), Ukrainian (native)

Articles

https://csitjournal.khmnu.edu.ua/index.php/csit/article/download/213/146/733 - THEORETICAL BACKGROUND FOR CREATING REAL WORLD DATA LAKE ARCHITECTURE ON AWS