

Joshua Willems

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ABOUT ME

I'm an experienced **full stack developer with 10+ years of experience**, passionate about learning and solving complex problems. I excel at making things more efficient and love tackling challenges with creativity and data.

SKILLS

- **Java, Spring Boot, Spring Cloud, Azure, AWS, Bash, Git, Maven, Gradle, Docker, Kubernetes, Jenkins, ELK** (Elasticsearch, Logstash, Kibana), **JUnit, Mockito, Selenium, REST API, Ansible, FreeMarker, DocBook, OSGi**
- Python, Golang, **MySQL, Oracle, MSSQL, MongoDB, PostgreSQL, Boomi, NetSuite, Liferay, JSR-286 Portlets**
- JavaScript, **Typescript, Angular, React, Next.js**, HTML, CSS, **SASS**, Jasmine, Karma, Ionic, Apache Cordova
- **OOP, Model Driven Architecture (MDA), Service Oriented Architecture (SOA), Microservice Architecture, Test Driven Development (TDD), Functional Programming (Java Stream API), Dynamic Programming (Neural Networks), DevOps and CI/CD**

PROFESSIONAL EXPERIENCE

Senior Full Stack Developer

Amyris (2020 – Present)

Amyris, Inc. is a synthetic biotechnology company that produces renewable chemicals for health and beauty industries.

- **Automated the disbursement reconciliation** processes from multiple payment gateways into NetSuite and other internal systems, significantly **improving the efficiency of critical financial operations**.
- Led the management and refactoring of **serverless applications** using **Event Driven Architecture** (pub/sub model), ensuring **effective retrieval and distribution** of loyalty data from third-party tools to internal systems.
- **Directed the hiring initiatives**, reviewed technical assessments of candidates, and **conducted technical interviews** to expand and diversify the capabilities of our Digital team.
- Achieved **substantial operating cost reductions** by **minimizing the runtime** of Azure Functions applications and optimizing connection pool management.
- **Supported the launch of live shopping** for various brands, using **Amazon IVS for live streaming** and integrating these features into the relevant **React apps and Shopify store fronts**.
- Built a **Zendesk API-based chatbot** tailored for e-commerce, **enhancing customer experience** and supporting customer care operations at Biossance.com.
- **Developed a POC for an in-house loyalty program** using **Amazon EventBridge, Spring Boot, MongoDB, and Shopify apps** - designed to **increase customer retention across brands** while maintaining tailored access and **control of loyalty data** and the flexibility to develop bespoke features as per evolving business requirements.

Co-Founder and Full Stack Developer

WBP Central (2017 – 2020)

WBP Central offers platform development with SEO, affiliate marketing, CRM, automation, and content optimization.

- **Conceptualized and developed a web-based platform**, merging the capabilities of a Content Management System with a Customer Relationship Management system. This platform captures data as content, **generating live web pages** that are optimized for both SEO and affiliate marketing.
- The platform **automated key internal processes**, bridging the workflow between directors and employees. It granted content creators and editors the freedom to choose assignments that resonated with them and **simplified the submission and feedback process**, making it both **efficient and enjoyable to use**.
- Developed the features that conducted **SEO audits, automated internal link building**, identified dead links, and **simplified site management, maintenance, and testing**. **Automated organic social media growth** across various platforms using Selenium WebDriver.
- Built a tech stack utilizing **Angular for the frontend, Java and Spring Boot for the backend** (powered by a **Model Driven Architecture**-based code generation tool), and **Jenkins and Kubernetes for CI/CD**, all hosted on **Google Cloud Platform**.
- Designed and implemented a separate (headless) Java based solution to **automate the selling process on a local online marketplace**, including **ingesting product listing data**, generating product detail pages, automated publishing on the marketplace and **managing post-sale import/export procedures**.

Developer

Discovery Vitality (2016 – 2017)

Discovery Vitality is South Africa's leading insurance provider using data and rewards to encourage healthier choices.

- **Contributed to a versatile Java based code generator tool** used to assist in the **MDA development process**. The tool is used to **generate solutions** based on the **microservice architecture**. The generated code is built in the **Spring Cloud Netflix framework** to be used in a **containerless, dockerized** environment. This tool played a **key role in implementing their new microservices architecture**.
- Led the **development of an Angular SPA, facilitating effective runtime data management** of the generated micro and nanoservices.
- **Engineered a Liferay Content Site Builder and JSR-286 list portlets** that autonomously deploy to corresponding Liferay sites and pages, **facilitating data management during runtime**.
- **Developed a Mobile Content Management Portal** for **multi-tenant** users to efficiently manage and generate mobile content translations, **ensuring precise multi-language support** across apps.
- Leveraged Enterprise Architect and **MDA** to generate Liferay portlets, incorporating wire-frame designs to **expedite UI prototyping and design time**.
- Employed Java, Docbook and MDA to **automate the creation of documentation** for various architectural diagrams, data models, microservice, nanoservice, and utility service APIs.
- **Augmented project deliveries** by developing **functional business solutions** atop the generated platform code.

Mobile App Developer

Affinion Mobile Solutions (2014 – 2016)

AMS develops cross-platform mobile apps for enhanced brand engagement and customer relationship management.

- **Led the development of native mobile applications** on multiple projects **for Android, Windows Phone, and BlackBerry** platforms, complemented by additional expertise in **iOS app development using Xamarin and C#**.
- Contributed to the **architectural design and implementation of backend services** using **ServiceStack and C#**, establishing a **robust backend infrastructure** to serve the various mobile applications.
- Developed and maintained **web-based client portals** for **managing and visualizing analytics data from apps**, along with **comprehensive reporting and logging** features **to empower each client**.
- **Expanded our service capabilities** by transitioning into **hybrid mobile app development**, utilizing technologies such as **Ionic, Apache Cordova, and Angular**.

Junior Developer

SALE Capital (2013 – 2014)

SALE Capital offers treasury consulting, derivatives, hedging, FX solutions, and training for corporates and banks.

- **Designed and developed a set of RESTful APIs** to facilitate the **collection, transformation, and integration of financial data** into BELLIN's treasury software, tm5.
- Leveraged my technical knowledge to **deliver effective consultancy work**, assisting clients in **optimizing their operations** and providing valuable **guidance on software deployment and technical inquiries** related to the tm5 software.

EDUCATION

BSc IT Degree in Information Technology & Computer Science

University of Johannesburg

PERSONAL PROJECTS

- **Microservice Studio:** Java MDA code generating tool used to generate Spring Boot/Spring Cloud microservice applications; incorporated by South Africa's leading insurance provider as part of their architecture.
- **Algorithmic Trading Project:** A Java-based, neural network-driven automated equity trading system using technical analysis algorithms.
- **Bloq:** An SEO and affiliate marketing-optimized web-based CMS, with CRM-like features, powered by a Spring Boot back end and Angular front end for dynamic data capture and live web page generation.
- **Bitcoin Arbitrage:** A Golang automated system for performing Bitcoin arbitrage by buying and selling across various global markets and exchanges.
- **Raspberry Pi Home Automation:** My first foray into IoT, a Python-based IoT home automation system that uses Raspberry Pis to control electronic devices remotely.